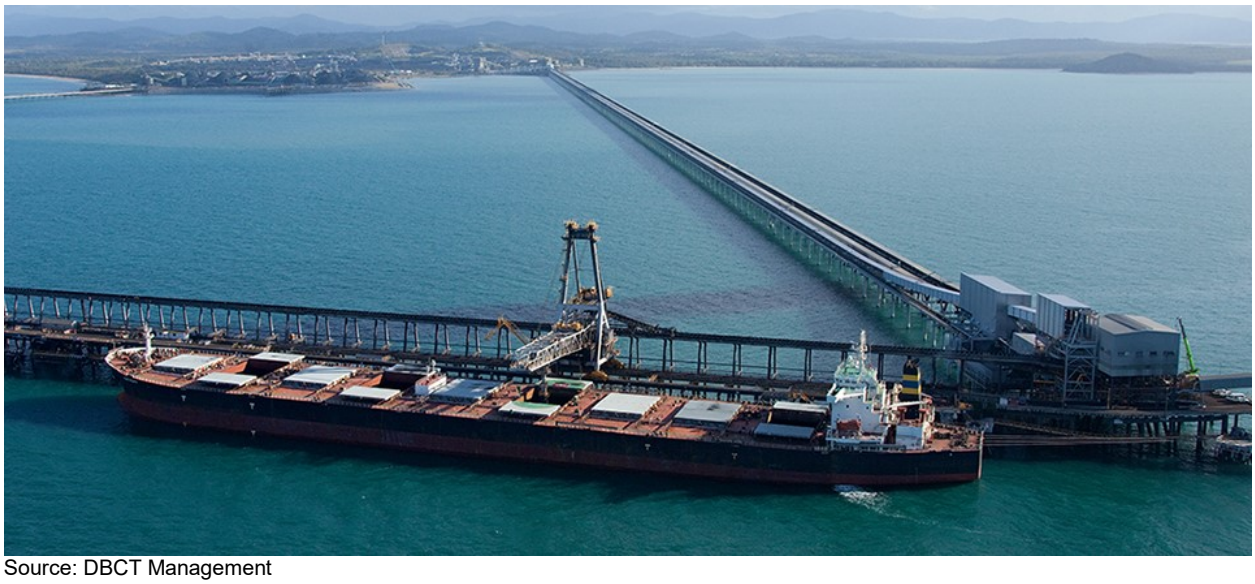
Dalrymple Bay Coal Terminal User Group

Declaration review regarding Dalrymple Bay Coal Terminal

Submission to the Queensland Competition Authority

30 May 2018



Source: DBCT Management

Contents

1 Executive Summary – Each of the access criteria are Satisfied

This submission is made on behalf of the existing and likely future uses of the Dalrymple Bay Coal Terminal (the ***DBCT User Group***) as detailed in section 2.2 of this submission below.

1.1 The access criteria are satisfied and the declaration should be continued

The DBCT User Group considers it is clear that:

(a) each of the four access criteria in section 76 of the *Queensland Competition Authority Act 1997* (Qld) (***QCA Act***) are satisfied in respect of the declared service, being the handling of coal at Dalrymple Bay Coal Terminal by the terminal operator (the ***Service***);

(b) consequently, the Queensland Competition Authority (***QCA***) must recommend the service continue to be declared for at least a further 15 year period in accordance with section 87A and 87C of the QCA Act.

In summary, the DBCT User Group has reached that conclusion based on the following reasoning and analysis:

1.2 Criterion (a) – promotion of competition

The DBCT User Group consider it is clear that access (or increased access) to the service, on reasonable terms and conditions, as a result of a declaration of the Service would promote a material increase in competition in a number of dependent markets.

To be satisfied that there is such a promotion of competition, the QCA simply needs to be satisfied that the continuation of declaration would give rise to a significant, finite probability of an enhanced environment for competition and greater opportunities for competitive behaviour – in a non-trivial sense – in a dependent market (compared to the likely state of the market without declaration). The QCA is not required to be satisfied that competition would definitely be immediately enhanced. That position is confirmed in the legal advice from Allens included as Schedule 1 to this submission (the ***Allens Advice***).

The DBCT User Group considers that it is clear that that threshold would be met in at least the following three dependent markets.

(a) **the Hay Point catchment coal tenements market** – where, the absence of declaration will materially impact on competition in the market due to the differential way it would impact on potential acquirers of coal tenements in that market, namely:

  (i) BHP Mitsubishi Alliance (***BMA***) and BHP Mitsui Coal (***BMC***) will not be materially adversely impacted as potential acquirers of tenements in the catchment by the declaration ceasing – as they will continue to have access to HPCT (which due to the coal handling services being supplied by an affiliate will be provided at an efficient cost);

  (ii) existing DBCT access holders will have the protection of the existing user agreements continuing, which provides certainty of access for as long as the renewal rights are exercised, and some arrangement in relation to future pricing through the contractual price review and arbitration rights (albeit with less protections and certainty than would exist if they owned the terminal or regulation had remained in place); and

  (iii) all other potential buyers of tenements will be at a material disadvantage to both BMA/BHP Mitsui and the existing DBCT access holders due to being highly exposed to the conduct of DBCT Management Pty Ltd (***DBCTM***), with no

certainty of access, pricing or other access terms, where DBCTM will have the ability and economic incentives to exercise substantial market power.

As a result, the competition to buy tenements will be significantly reduced – with the very type of company that has more recently been active in buying exploration or development projects in the Hay Point catchment coal tenements market being likely to exit from, or play a much diminished role in, the market.

In that regard, the DBCT User Group notes that:

(i) those members of the DBCT User Group that have invested in the Hay Point catchment tenements market in the last few years have confirmed that the declaration (and resulting protections in the DBCT access undertaking) were an important part of their investment decision;

(ii) at least for new users, DBCTM will have the power and incentive to materially increase the price of coal handling services (as that would be a profit maximising strategy for DBCTM, given its natural monopoly position, absent declaration);

(iii) the coal handling services and resulting change in infrastructure costs (particularly when related rail costs are taken into account) will be a significant proportion of a coal producer's costs – such that unlike the findings in the Newcastle shipping channel proceedings, the impact on a producer's investment decisions in the tenements market will be material; and

(iv) even if DBCTM was to offer any future contractual arrangements they are highly unlikely to provide the certainty of long term access, reasonable terms and efficient pricing levels required in order for potential producers to continue to invest in acquisition of tenement in the Hay Point catchment coal tenements market.

(b) **The DBCT secondary capacity trading market** – where, but for the declaration it would be possible for DBCTM to refuse to consent to producers directly assigning and trading capacity such that Brookfield Port Capacity Pty Ltd (***BPC***), a related body corporate of DBCTM, is the only source of capacity in that market. The declaration currently resolves the anti-competitive impacts of that vertical integration by way of the DBCT access undertaking containing ring-fencing protections to which DBCTM and that supply chain business is subject. This market is a distinct market from the market in which the declared services is provided, with different suppliers, and different pricing and durations meaning the rights which can be acquired in the secondary capacity trading market are not substitutable for the declared service as supplied by DBCTM.

(c) **The central Queensland rail haulage market** – where, but for the declaration (and particularly the transparency of pathways to access for coal customers, efficient pricing, standard terms, protections against future vertical integration and standardised terms that the declaration has produced) the commercial environmental in which the rail haulage market exists will become far less attractive and provide a substantial deterrent to any further new investment or entry. The adverse impact on coal producers will be felt more significantly in this market than in coal markets themselves, given that DBCT impacts on a far greater proportion of this market than it does of coal markets.

It is also clear that competition in the ***metallurgical coal market*** will be impacted through DBCTM's incentives and ability to engage in monopoly pricing, although the DBCT User Group has focused less on that in this submission given that criterion (a) is clearly satisfied by reference to any of the 3 dependent markets noted above.

The expert economic report prepared by Castalia Strategic Advisors, enclosed as Schedule 2 to this submission (the ***Castalia Report***) provides analysis and modelling that supports the conclusions that declaration of the Service would promote a material increase in competition in a dependent market.

1.3 Criterion (b) – foreseeable demand at least cost

The DBCT User Group consider it is clear that the facility for the Service (i.e. DBCT) could meet the total foreseeable demand in the relevant market (the Hay Point common user coal handling services market) at least cost compared to any 2 or more facilities.

The DBCT User Group have had reference to numerous credible and independent projections of foreseeable demand, all of which indicate a demand profile which is within DBCT's existing capacity.

Even when an extreme upper band demand forecast is adopted, it remains clear that DBCT (as incremental expanded to meet that demand) would meet that demand at least cost than 2 or more facilities.

Taking into account those demand profiles, it is clear that such demand can be met at least cost by DBCT alone over any reasonable period selected as the period for which the service should be declared. That is demonstrated in this submission to be the case on the basis of a 15 year period.

The expert economic report prepared by PricewaterhouseCoopers, enclosed as Schedule 3 to this submission (the ***PwC Report***) provides analysis and modelling which demonstrates that foreseeable demand is met at least cost by DBCT (including incrementally expanded as required).

1.4 Criterion (c) – significance of DBCT

The DBCT User Group consider it is clear that the facility for the Service (i.e. DBCT) is significant, having regard to its size or its importance to the Queensland economy.

DBCT is one of the world's largest coal export terminals (at 85 mtpa capacity), is the gateway to market for significant volumes of Queensland's coking coal and thermal coal resources from the Bowen Basin and is critical to Queensland's broader economy in numerous ways (such as through employment, government royalties, and indirect economic impacts and being critical to ecologically sustainable development in the Great Barrier Reef region given Hay Point's designation as a priority port).

DBCT's position as significant infrastructure having regard to its size and importance to Queensland's economy was accepted by the State, National Competition Council (***NCC***) and Commonwealth Minister during the process for certification of the DBCT access regime in 2010 and this criterion remains unchanged since that decision was made.

The PwC Report provides further evidence of DBCT's significance.

1.5 Criterion (d) – promotion of the public interest

The DBCT User Group consider it is clear that access (or increased access) to the Service, on reasonable terms and conditions, as a result of declaration of the Service would promote the public interest.

In particular, declaration provides an extensive array of public benefits, including facilitating and providing incentives to invest in dependent markets and DBCT itself, economic growth, environmental benefits, and provision of regulatory certainty.

In addition, declaration has imposed very minimal costs (particularly in the context of DBCT always having been a common user terminal).

The PwC Report provides further evidence of how declaration promotes the public interest.

2 Introduction and context for the review

2.1 Introduction

The DBCT User Group thanks the QCA for the opportunity to make submissions on the review of the current declaration of the Service, being 'the handling of coal at Dalrymple Bay Coal Terminal by the terminal operator'.

The continuation of that declaration and therefore this review, is critical to not just the existing coal users and future users of DBCT, but efficient investment and competition in a wide variety of related markets and the broader Queensland economy.

For the detailed reasons set out in this submission and the supporting expert economic reports from PricewaterhouseCoopers (***PwC***) and Castalia Strategic Advisers (***Castalia***), and legal advice from Allens, the DBCT User Group strongly believes that:

(a) each of the access criteria in the QCA Act is clearly satisfied in respect of the Service; and

(b) consequently, the QCA must recommend that the Service remain declared for at least 15 years.

2.2 The Dalrymple Bay Coal Terminal User (and Potential Future User) Group

For the purposes of this submission, the DBCT User Group has not been limited to the existing users of the terminal.

Rather, conscious that a declaration would cause substantial harm to both existing and potential future acquirers of the Service, each of the following companies have been consulted about and support this submission:

(a) Anglo American (existing user);

(b) BHP Mitsui Coal (existing user);

(c) Fitzroy Australia Resources (existing user);

(d) Glencore (existing user);

(e) New Hope (access seeker);

(f) Peabody Energy Australia (existing user);

(g) Pembroke Resources (existing, but also an access seeker);

(h) Realm Resources (existing user);

(i) Rio Tinto (existing user);

(j) Stanmore Coal (existing user);

(k) Terracom (access seeker); and

(l) Whitehaven Coal Limited (potential future access seeker).

As such, it reflects the views and concerns of both existing access holders and likely near-term future access seekers.

Of course, longer term future access seekers cannot be known at this stage, and they (and the DBCT User Group) are reliant on the QCA to consider and protect their position in this declaration review.

2.3 Context of the declaration

(a) Declaration

The *'handling of coal at Dalrymple Bay Coal Terminal by the terminal operator'* is currently a declared service under transitional provisions in section 250(1)(b) of the QCA Act.

However, DBCT has in fact been a common user coal terminal ever since its initial establishment in 1983, initially under government ownership.

The declaration of the Service has been in place through one method or another since DBCT was privatised by the State in 2001. In particular:

(i) In 2001, the declaration was made by regulation under the *Queensland Competition Authority Amendment Regulation (No. 1) 2001* (Qld);

(ii) In 2007, the declaration was remade by regulation under the *Queensland Competition Authority Regulation 2007* (Qld); and

(iii) In 2010, when the ability to declare a service by regulation was removed from the QCA Act under the *Motor Accidence Insurance and Other Legislation Amendment Act 2010* (Qld), the declaration was continued under section 250(1)(b) of the QCA Act for a further 10 years.

In other words throughout the entirety of the period since the State ceased to control the terms on which the Service was provided, it considered it appropriate to ensure that the Service was declared.

The DBCT User Group understands that the only reason that the declaration now has a transitional expiry date is that the State wished to have the regime certified as an effective access regime under Part IIIA of the *Competition and Consumer Act 2010* (Cth) (***CCA***) (and was conscious of the principle in the Competition Principles Agreement[1] clause 6(4)(d) that there was a periodic review of the need for access regulation) – not because there has been any change in the appropriateness of declaration.

(b) Certification

The current declaration was part of the 'DBCT Access Regime' for which the Queensland government successfully sought and obtained certification as an 'effective access regime' under Part IIIA of the CCA in 2010.

The certification application and the following recommendation by the National Competition Council (***NCC***) and certification decision by the Commonwealth Minister, made clear why the State and other stakeholders have long held the view that the Service should be declared.

In addition, given the similarity of some of the principles under the Competition Principles Agreement and the access criteria to be satisfied in this declaration review, some of the submissions and decisions in that process are highly relevant to this review.

In particular, as noted in the Queensland government's application for certification (the ***Certification Application***):[2]

> *The DBCT access regime has facilitated competition in the market for Queensland coal tenements and in the market for the shipping and export of coal. It means terminal users are not charged access prices higher than those that would apply in a competitive market, while ensuring sufficient returns for the operator to facilitate significant expansions of the terminal.*

[1] Competition Principles Agreement (between the Commonwealth and each State and Territory of Australia), 11 April 1995

[2] Queensland Government, *Application to the National Competition Council for a Recommendation on the Effectiveness of an Access Regime – Queensland Third Party Access Regime for coal handling services at Dalrymple Bay Coal Terminal*, December 2010 at 7.

> *Upon commencement of regulation, access charges fell by around 17 per cent and the price approved by the QCA was around 40 per cent lower than that proposed by DBCT's new owner. Ongoing oversight of DBCT by the QCA also ensure that only the prudent costs of infrastructure expansion are passed through to customers.*

It is notable that Brookfield Infrastructure Partners (then, and now, the ultimate owner of DBCTM) made a submission (the ***Brookfield Certification Submission***) supporting those conclusions as follows:[3] (at paragraph 9):

> *The Premier's application to the Council in December 2010 contains a detailed assessment of the DBCT Access Regime against the criteria for certification set out in the CCA and CPA. For all criteria, the application concludes that the DBCT Access regime satisfies, or demonstrates consistency, with the objectives of the CCA and CPA. BIP supports the conclusions drawn in the application.*

The DBCT User Group notes that these previous views of the ultimate owners of DBCTM should not now be forgotten just because those conclusions may no longer commercially suit them in the context of the current declaration review.

Similarly the NCC, in recommending that certification be provided for the DBCT access regime noted (at paragraph 5.10):

> *The DBCT is a significant infrastructure facility, having regard to its size and importance to Queensland's economy. Facilities such as the DBCT are likely to exhibit natural monopoly characteristics and are unlikely to be economically feasible to duplicate. Access to the services covered by the DBCT Access Regime is necessary to permit effective competition in dependent markets …*

Finally the Commonwealth Minister concluded in his Statement of Reasons:

> *The CPA principles in 6(3)(a), 6(4)(d) deal with the scope of an effective access regime. It should:*
>
> - *apply to services provided by significant infrastructure facilities that are not economically feasible to duplicate, where access is necessary to permit effective competition and can be provided safely at a reasonable cost*
>
> *…*
>
> *I consider that the scope of the DBCT Access Regime is consistent with CPA principles.*

The DBCT User Group acknowledges that the current access criteria and the principles in the Competition Principles Agreement (as it was at the time of the certification process in 2010) are not perfectly aligned. However, it can be seen, even from those short extracts, that many of the issues that fall to be considered in this review have in fact already been extensively considered. The State, NCC and Commonwealth have all previously determined that it is appropriate for the Service to be regulated.

DBCT and the Service have not changed materially since 2010, and the reasoning behind those conclusions and the conclusions themselves remain just as valid today.

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[3] Brookfield Infrastructure Partners L.P., *Application for Certification of the Dalrymple Bay Coal Terminal (DBCT) Access Regime – Submission from Brookfield Infrastructure Partners L.P.*, 14 February 2011 at paragraph 9.

The long history of regulation, contractual arrangements entered at the time, and all stakeholders' clear views on the merits of continuing regulation, evidences a clear expectation among users, the State and the various infrastructure funds which have owned the terminal, that the declaration of the Service would always continue.

2.4 Context of the review

The declaration of the Service under the QCA Act is now scheduled to expire on 8 September 2020 by virtue of section 250(2)(a) QCA.

Importantly that expiry is occurring, not through any judgement or analysis that the declaration is no longer appropriate, but merely by an expiry of the transitional period of declaration provided for.

In that context, it falls to the QCA to conduct a review of the access criteria under section 87A QCA Act.

The QCA must make a recommendation that the service remain declared if the QCA is satisfied about all of the access criteria: s 87C(1) QCA Act.

The four access criteria which are required to be satisfied are set out in section 76 QCA Act, namely being:

> *(a) that access (or increased access) to the service, on reasonable terms and conditions, as a result of a declaration of the service would promote a material increase in competition in at least 1 market (whether or not in Australia), other than the market for the service;*
>
> *(b) that the facility for the service could meet the total foreseeable demand in the market –*
>
> *(i) over the period for which the service would be declared; and*
>
> *(ii) at the least cost compared to any 2 or more facilities (which could include the facility for the service);*
>
> *(c) that the facility for the service is significant, having regard to its size or its importance to the Queensland economy; and*
>
> *(d) that access (or increased access) to the service, on reasonable terms and conditions, as a result of declaration of the service would promote the public interest.*

These criteria are referred to as ***criterion (a)***, ***criterion (b)***, ***criterion (c)*** and ***criterion (d)*** respectively in the remainder of this submission.

The access criteria have very recently been amended by the *Queensland Competition Authority Amendment Act 2018* (Qld). In particular, criterion (a), (b) and (d) now use wording that mirrors the current provisions of the Part IIIA of the CCA (as itself recently amended by the *Competition and Consumer Amendment (Competition Policy Review) Act 2017* (Cth)).

To the best of the DBCT User Group's knowledge, the current declaration review is actually the first time the new criteria have come to be considered by any court or regulator since they were amended.

3 Approach to Market Definition

3.1 General approach

The DBCT User Group agrees with the approach taken in the QCA's Staff issues paper *'Declaration reviews: applying the access criteria'*, April 2018 (the ***Staff Issues Paper***) of addressing the market in which the Service is provided first.

That market is then the market in which foreseeable demand is measured for the purposes of criterion (b) and assists in defining the upstream and downstream dependent markets in which the likely state of competition is to be assessed for the purposes of criterion (a).

That approach is also consistent with the indications of how the equivalent criterion in the national access regime are intended to operate. In the explanatory memorandum to the *Competition and Consumer Amendment (Competition Policy Review) Bill 2017* (***Competition Policy Review Bill EM***) it is stated that:

> *12.23 The approach under the new paragraph is market-based, requiring the market in which the infrastructure service under application is supplied to be defined. This includes any substitute services that service or will serve the market.*

As noted above, the Service is 'the handling of coal at Dalrymple Bay Coal Terminal by the terminal operator' (with the facility clearly being DBCT).

Section 71(2) of the QCA Act relevantly provides that:

> *If "market" is used in relation to goods or services, it includes a market for –*
>
> *(a) the goods or services; and*
>
> *(b) other goods or services that are able to be substituted for, or are otherwise competitive with, the goods or services mentioned in paragraph (a).*

Consequently the relevant market for the purposes of criterion (b) (that is the market in which the Service is provided), is to be defined by reference, first, to the Service (as per section 71(2)(a) QCA Act) and then secondly, to other services which are 'able to be substituted for, or are otherwise competitive with' the Service (as per section 71(2)(b) QCA Act).

The general approach to market definition, as determined by reference to that statutory wording and how such substitutability can be measured, is discussed in this section 3 of this submission, with further detailed comments included in later sections of this submission where critically relevant to a particular market or criterion.

3.2 'Able to be substituted for' – Measuring substitutability

The DBCT User Group, and its legal adviser Allens, support the analysis of the approach to determining substitutability discussed in section 3.3 of the Staff Issues Paper and the advice from Minter Ellison dated 3 April 2018 which forms Appendix A to the Staff Issues Paper (the ***Minter Ellison Advice***).

That analysis is based on, and consistent with, consideration in numerous leading decisions including those referenced in the State Issues Paper itself such as *Re Queensland Co-operative Milling Association* (***Re QCMA***)[4] and *Queensland Wire Industries Pty Ltd v Broken Hill Pty Co Ltd*[5].

[4] (1976) ATPR 40-012

[5] (1989) 167 CLR 177

In particular, as stated in *Re QCMA* a market for the purposes of the competition legislation is:

> *the field of actual and potential transactions between buyers and sellers amongst whom there can be strong substitution, at least in the long run, if given a sufficient price incentive … Whether such substitution is feasible or likely depends on consumer attitudes, technology, distance and cost and price incentives.*

Importantly, as made clear in the High Court's judgement in *Boral Masonry v ACCC*[6]:

> *The market is the area of actual and potential, and not purely theoretical, interaction between producers and consumers where given the right incentive – a change in price or terms of sale – substitution will occur.*

That is, as noted in the Minter Ellison Advice:

> *if there are reasons to conclude that, even over the long run, customers would be unlikely to switch in response to price incentives, the approach outlined in QCMA would support the conclusion that the services are offered in separate markets.*
>
> *…*
>
> *where the QCA identifies a facility which is functionally similar, but to which third party access has not been offered, it is necessary to inquiry into why this is so, and what is likely to happen in the future … if the absence of access is due to other considerations, which reflect the characteristics of the relevant facility and which are unlikely to permit substitution even over the long term, it may follow that the facilities are operated in separate markets.*

Accordingly, consistent with the longstanding and well accepted approach, the DBCT User Group have focused on substitution possibilities which encompass both actual and likely potential possibilities of substitution, but have given little weight to purely "theoretical" substitution possibilities.

This approach is confirmed by the form of section 71(2) of the QCA Act, which focuses upon services that *'are able to be substituted for'* the services provided by the facility - a more explicit practical inquiry than that suggested by the similar but not identical wording of section 4E of the CCA.

3.3 Otherwise competitive with

Consistent with judicial consideration of the principles of market definition, the DBCT User Group agrees with the Minter Ellison Advice that the reference in section 71(2)(b) QCA Act to services that are 'otherwise competitive with' the Service does not widen the market to services that are not substitutable, but simply clarifies that the market includes close but not perfect substitutes.

In particular the DBCT User Group and its legal adviser Allens support the view in the Minter Ellison Advice that the current state of the law is the statement of Justices Dowsett and Lander in *Seven Network Limited v News Limited*[7]*:*

> *The better view is that s4E addresses constraints upon the supply or acquisition of the relevant goods or services. In that context the word "substitutable" is used in a narrow sense whilst the words "or otherwise competitive with" including degrees of "substitutability". We accept that the*

[6] (2003) 215 CLR at [252].

[7] [2009] FCAFC 166 at [621]

section addresses "close" competition and that "closeness" is a matter of degree.

Given the similarity of wording and context in section 71(2) QCA Act, the DBCT User Group also agrees that position is relevant to the definition of markets for the purposes of this review.

3.4 SSNIP / Hypothetical monopolist test

The DBCT User Group agrees with the Minter Ellison advice that:

(a) an important tool in seeking to define the boundaries of a market is the 'hypothetical monopolist test' – involving evaluating the likelihood of substitution possibilities in response to a small but significant non-transitory increase in price (***SSNIP***);

(b) while the QCA Act does not prescribe a methodology for defining markets – it would be appropriate for the QCA to seek to apply the hypothetical monopolist/SSNIP test in seeking to define the relevant market given that it has been adopted by courts, regulatory bodies, and economists as a well understood and commonly applied approach to seeking to define market boundaries;

(c) it is important not to apply the test in an overly rigid or restrictive manner; and

(d) the views of stakeholders as to how the market operates in practice will be highly relevant to the QCA's consideration (noting that as the current and potential future acquirers of the Service, the DBCT User Group are actually better placed than any other stakeholder to provide evidence of the substitutability of other services in respect of the Service).

3.5 Purposive approach to market definition

The DBCT User Group would add one additional observation to those referred to in the Minter Ellison advice, namely that the approach taken to market definition should be purposive.

In other words, as described by the Full Federal Court in *Queensland Wire*:

> *In defining the market or markets involved in a particular dispute, one should begin with the problem at hand and ask what identification of market best assists in analysing the processes of competition or lack of competition, with which the case in concerned* [8]

That reasoning led to Justice French observing in *Singapore Airlines Ltd v Taprobane Tours WA Pty Ltd WA Pty Ltd*[9] commentary that:

> *the word 'market' is best understood not as denoting an objective feature of the world but as designed to set in motion a process related to the effective application of the particular statutory provision under consideration. That process may lead to the drawing of different lines in different circumstances depending on the purpose of the provision in question.*

That is the context of the market related criterion (a) and (b) guides the market definitions to be adopted for the purposes of assessing whether those criterion are satisfied. In other words the QCA should be defining markets in a way that best allows the QCA to assess the practical impact on competition in dependent markets (criterion (a)) and whether foreseeable demand can be met at least cost (criterion (b)).

[8] *Queensland Wire Industries Pty Ltd v Broken Hill Pty Ltd* (1987) 17 FCR 211 at 218-219

[9] (1991) 33 FCR 158 at 175

4 Overview of resulting market definition analysis

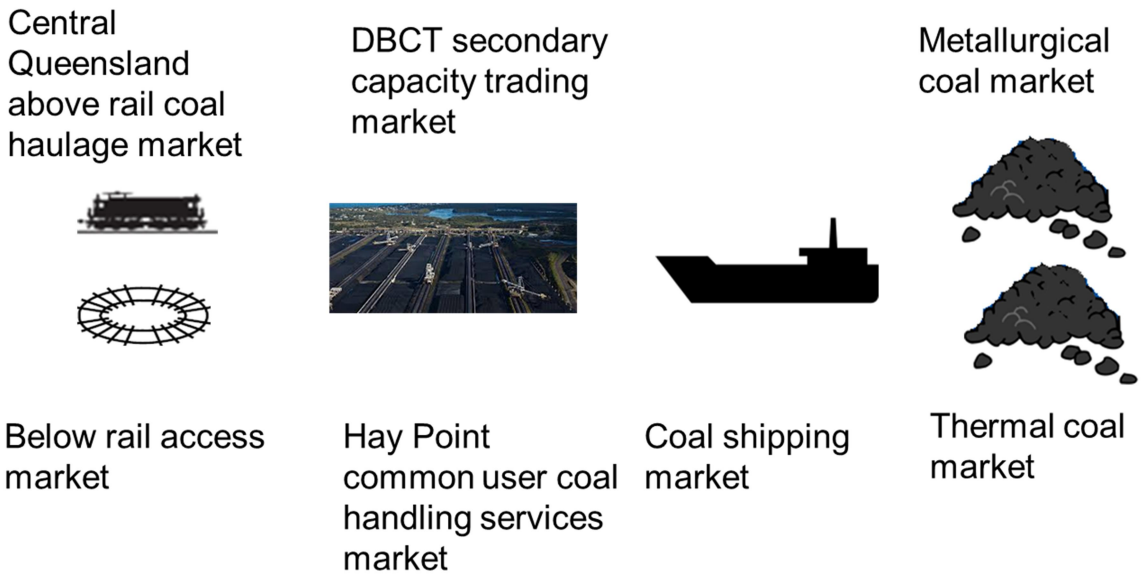
The DBCT User Group has given extensive consideration to:

(a) the market in which the Service is provided (which is highly relevant for criterion (b) in particular as that is the market in which foreseeable demand must be met at least cost by the facility); and

(b) the most relevant dependent markets – being those markets which have some relation to the market in which the Service is provided (which is highly relevant for criterion (a) as the dependent markets are those in which it must be shown that access (or increased access) on reasonable terms as a result of declaration would promote a material increase in competition).

For the detailed reasons set out in sections 5 and 6 of this submission, the DBCT User Group consider the relevant markets are appropriately defined as set out below.

There are a series of identifiable markets, which together make up the physical coal supply chain:



Of those, the Hay Point common user coal handling services market is the market in which the Service is provided, with the remainder being dependent markets.

In addition, the DBCT User Group has also identified a series of other dependent markets which are not directly part of the physical coal supply chain but in which the impact on competition should be considered, including

(a) Hay Point catchment coal tenements market;

(b) markets for various mining inputs; and

(c) markets for various mining services.

Given that criterion (a) is satisfied if access (or increased access) on reasonable terms as a result of declaration would promote a material increase in competition in at least one dependent market, this submission focuses on three dependent markets where declaration has clearly promoted a material increase competition (and that promotion will be removed if the declaration ceases) rather than seeking to absolutely define the boundaries of all potentially impacted dependent markets.

5 Defining the market in which the Service is provided

5.1 The Hay Point Common User Coal Handling Services market

The DBCT User Group considers that the market in which the Service is provided is appropriately defined as the Hay Point common user coal handling services market in which:

(a) The only existing supplier is DBCTM through providing the Service;

(b) If:

(i) there was ever sufficient demand at a price that would underwrite development of a greenfield common user terminal in the Port of Hay Point;

(ii) land and approvals could be obtained for such a development;

(iii) the related below and above rail investment occurred contemporaneously; and

(iv) the required shipping channels were expanded or developed with related dredging,

the future developer of such a terminal would be a potential supplier in those circumstances. The DBCT User Group strongly doubts those circumstance exist, noting that the Dudgeon Point Coal Terminal (***DPCT***) development was previously proposed in the Port of Hay Point but development plans for such a terminal were cancelled in 2014 and have not been revived;

(c) The current acquirers are all the existing users of DBCT; and

(d) The potential acquirers are future coal producers in those parts of the Bowen Basin that are within the Hay Point catchment (discussed further below).

To define the relevant market, the DBCT User Group have considered:

(a) The services/product dimension of the market; and

(b) The geographic dimension of the market (particularly whether it includes other coal terminals).

This is effectively the same process as that the QCA has referred to in the Staff Issues Paper as identifying the customers and competitors in the market.

5.2 Previous market definitions adopted by QCA and ACCC

The proposed definition of the market in which the Service is provided is consistent with the preliminary market definition the Australian Competition and Consumer Commission (***ACCC***) adopted ('the supply of coal handling services at DBCT') in its Statement of Issues dated 15 October 2015 on the Brookfield consortium's proposed acquisition of Asciano Limited.

In coming to that conclusion the ACCC commented

> *88. … Coal producers provided a range of reasons why other coal terminals such as those at Abbot Point and Gladstone are not close substitutes for DBCT. Some of the reasons included:*
>
> *a. The distance from mine to port is a significant factor in selecting a coal export terminal – DBCT is the closest terminal to the mines and rail haulage costs are therefore significantly cheaper;*
>
> *b. Capacity constraints at other terminals and on connecting rail networks prevent coal producers from utilising terminals other than DBCT;*

c. *The long term 'take-or-pay' nature of both below rail and port access contracts limits switching between terminals;*

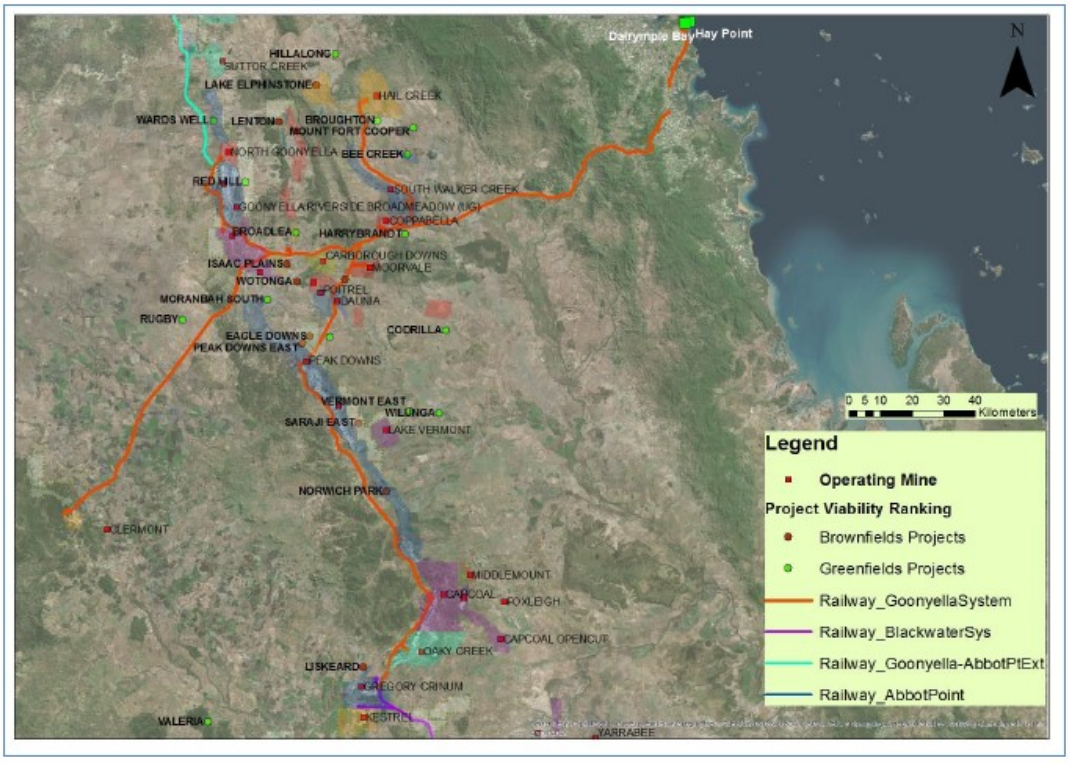
d. *Transporting coal to Abbot Point requires coal producers to use the Goonyella to Abbot Point system (which, unlike the Goonyella coal rail system, is a non-electrified rail system and is therefore only suitable for diesel locomotives).*

Similarly, the QCA itself concluded in its Final Decision in relation to the DBCT 2015 draft access undertaking (at page 99-100) that:

> *stakeholders have not provided compelling evidence that APCT will materially compete with DBCT during the course of the next regulatory period.*
>
> *…*
>
> *On balance, we still consider the evidence suggests there are many practical and economic barriers to access holders transferring capacity to alternative terminals, particularly in the course of this regulatory period. We note the ACCC reached the same conclusion on this matter. We therefore consider DBCTM remains in a situation of limited competition for its services in this regulatory period.*

Consequently, the market definition proposed by the DBCT User Group is supported by the previous (but recent) findings of the ACCC and QCA.

The DBCT User Group also note the previous RMI Report[10] provided to the QCA in connection with the 2015 draft access undertaking process which identified a 'Hay Point catchment' consistent with this market definition, depicted in the diagram below from that report:



[10] Resource Management International (RMI), Review of the Economic Life of DBCT Assets, Final Report, December 2015

5.3 Services / product dimension of the market

It is absolutely clear that there is no close substitute for coal handling services (as provided by the specifically designed coal terminals that service Bowen Basin coal exports).

The handling services provided at general freight terminals and ports are clearly not substitutable – given the specific needs of coal producers, such as:

(a) connection to the central Queensland coal region rail network;

(b) terminals that provide unloading facilities that can facilitate bulk rail haulage unloading utilising kwik-drop wagons and the long trains used by the existing rail haulage providers;

(c) coal stockpile space (even for cargo assembly ports);

(d) the need to manage coal stockpile storage to ensure coal quality is maintained, and coal dust emissions are controlled; and

(e) the deep-water channels and port required for the large cape size and panamax vessels used to ship coal,

as well as regulatory approvals varying for different types of port activities.

Given the substantial land area and facilities required to provide coal handling services, and the very substantial capital costs involved, it would also be completely impractical for an existing general freight terminal or port to convert to providing coal handling services, irrespective of the change in price of the Service. Unsurprisingly, there is no previous examples of such a conversion occurring at any major port in Australia.

Accordingly, the DBCT User Group considers it is clear that the services dimension of the market is confined to coal handling services.

5.4 Geographic dimension of the market

To determine the geographic dimension of the market, the DBCT User Group has considered the substitutability of the coal handling services provided by other existing or potential coal terminals.

As identified in section 3 of this submission above, the relevant question is whether coal handling services provided at other coal terminals are close substitutes for the Service provided at DBCT.

In that regard the DBCT User Group have considered other existing or potential future coal terminals in the central Queensland region to the north and south of DBCT, being:

(a) any future DPCT development at the Port of Hay Point;

(b) the Hay Point Coal Terminal (***HPCT***) at the Port of Hay Point;

(c) the Abbot Point Coal Terminal (***APCT***) at the Port of Abbot Point;

(d) the RG Tanna Coal Terminal (***RGT***) at the Port of Gladstone; and

(e) the Wiggins Island Coal Export Terminal (***WICET***) at the Port of Gladstone.

In each case the DBCT User Group have analysed the likelihood of any substitution and the reasons for any lack of substitution occurring.

That has included application of the hypothetical monopolist test / SSNIP test (in relation to how coal producers and terminal providers would react to a small but significant non-transitory increase in price charged by DBCTM for the Service).

Given that the relevant inquiry is one of likely substitution during the period of declaration, the DBCT User Group does not consider it is necessary for the QCA to consider every possible hypothetical or theoretical alternative coal terminal developments. Rather the focus should be on

what coal handling services are actually likely to be available, such that they might be close substitutes for the Service.

Consequently, the QCA's consideration can be directed to the existing priority port (as the *Sustainable Ports Development Act 2015* (Cth) will prevent major capital dredging for the development of new port facilities elsewhere in the Great Barrier Reef World Heritage Area).

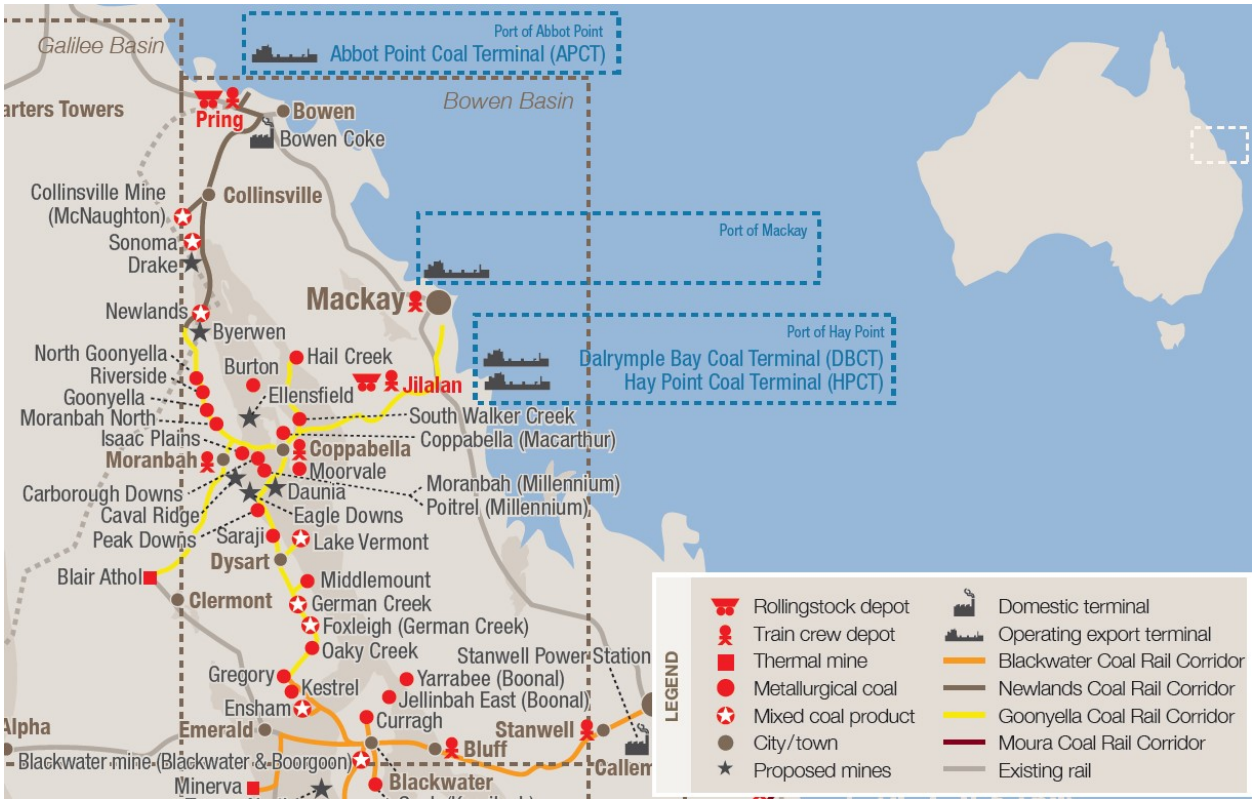
The location of the other Queensland coal terminals relative to the central Queensland coal region rail network and existing Bowen Basin mining operations is shown in the map below.

For completeness the DBCT User Group notes that the Barney Point Coal Terminal (which is shown in that map) has been closed and for environmental and social reasons is not proposed to be reopened (such that there is no likelihood of future substitution for it).

Source: Aurizon Network website

As that map plainly demonstrates, APCT (at over 200km north) and RGT and WICET (at approximately 400km south) are a significant distance away from DBCT (and from the mines on the Goonyella rail system that currently export through DBCT).

Unsurprisingly, given the significant distance (and the impact that has on below rail and above rail costs) nearly all of the existing users of DBCT operate mines connected to the closest rail system – the Goonyella system (shown in yellow in the diagram below).



Source: Aurizon Network website

An important point that the Goonyella system map above demonstrates is that the mines that deliver coal to DBCT are a variety of distances away from DBCT (and the other coal terminals being considered), such that the costs and other constraints on substitution are not identical for all existing or future DBCT customers.

For example:

(a) Kestrel is the most southern current user of DBCT, although even then it has only ever delivered a small volume of marginal tonnes to DBCT (utilising capacity held by Rio Tinto principally for the much closer Hail Creek, such that it is questionable whether it would have done so if owned independently of a true Goonyella system mine);

(b) North Goonyella is the most northern current user; and

(c) Mines like Coppabella, Moorvale, Hail Creek, Isaac Plains, and Carborough Downs are located, in a relative sense, very close to DBCT.

As a result, and given the commercial sensitivity in relation to the costs incurred by individual users, the DBCT User Group has sought to analyse substitution possibilities having regard to ranges of cost consequences for switching – as described in more detail in the PwC Report.

To the extent it was considered that for a particular user at the northern or southern extremes of the Goonyella system it was a substitute to use capacity at another terminal that does not mean that the Service and the coal handling services of that other terminal are in the same market.

As the court noted in *Arnotts Ltd v TPC*[11]:

> *the fact that, upon some occasions, some consumers select one product rather than another does not establish that the two products are "substitutable", so as to be within a single market. … [I]f for example, a particular company dominated the sale of tea within Australia, it would thwart the objectives of provisions such as ss 46 and 50 … to deny their application, because the company did not dominate the "hot beverage market".*

Similarly, in *Singapore Airlines Ltd v Taprobane Tours WA Pty Ltd*[12], Justice French quoted with approval the following commentary:

> *A vast number of firms might have some actual or potential effect on a defendant's behaviour. Many of them, however, will not have a significant effect and we attempt to exclude them from the relevant market in which we appraise a defendant's power. We try to include in the relevant market only those suppliers – of the same or related product in the same or related geographic area – whose existence significantly restrains the defendant's power.*

Marginal switching between services by one or even a small number of users in particular circumstances does not demonstrate close substitutability of the type required to support a finding that two services are provided in the same market.

In other words, for the Service to be considered substitutable for the coal handling services provided at another coal terminal it would need to be shown that at least a significant proportion of DBCT Users would switch to that other terminal in response to a SSNIP for the Service.

5.5 Limits on substitutability between terminals

The DBCT User Group's consideration of the substitutability of coal handling services provided by other terminals for the Service provided at DBCT has revealed a range of constraints on the ability of a coal producer to switch terminals in response to DBCTM charging more at DBCT (i.e. imposing a SSNIP for the Service).

The DBCT User Group considers it is clear that, applying the hypothetical monopolist test, those constraints would be such that coal producers would not in fact change the coal terminals that they used to any of the other existing or potential coal terminals in response to a SSNIP for the Service.

As demonstrated by the PwC Report, substitution is in fact not economically viable to DPCT, APCT, RGT or WICET based purely on consideration of the incremental infrastructure costs which would be involved in a coal producer in the Hay Point catchment switching the terminal it used.

However, cost differential is only part of the constraints on substitution.

[11] (1990) 24 FCR 313

[12] [1991] FCA 621

While detailed reasoning is provided in respect of the services of each individual terminal further below, in summary those constraints and how they apply to the various coal terminals is set out in the table below (with red shading indicating a barrier that applies to constrain substitution by a producer in the Hay Point catchment to services provided at that terminal).

	Coal Terminal				
Barrier to substitution	**DPCT**	**HPCT**	**APCT**	**RGT**	**WICET**
Alternative terminal costs					
Below rail costs					
Above rail costs					
Below rail network differences					
Insufficient terminal capacity					
Unlikelihood of greenfield development					
Terminal capacity required by terminal owner					
Metallurgical coal co-shipping opportunities					
Existing long term take or pay contracts					

In addition to those constraints which are terminal or rail network specific, there are some restrictions that are user specific. In particular for some mines, capital investment would be required to reconfigure the turn-out from the mine's rail loop in order for coal to be able to be hauled in a different direction. By way of illustration of the significant costs involved in overcoming this issue, one of the DBCT Users has been quoted $50 million for an angle turn-out of this nature to be developed.

Consequently, there are constraints on substitution beyond those which have been able to be more generally modelled.

5.6 Analysis of cost constraints to switching

The DBCT User Group do not have access to the underlying costs of the other coal terminals – so the modelling by PwC is based on confidential User Group information regarding the costs that they actually pay for the relevant infrastructure services and reflects the costs of:

(i) coal handling services at the terminal;

(ii) below rail access to the terminal; and

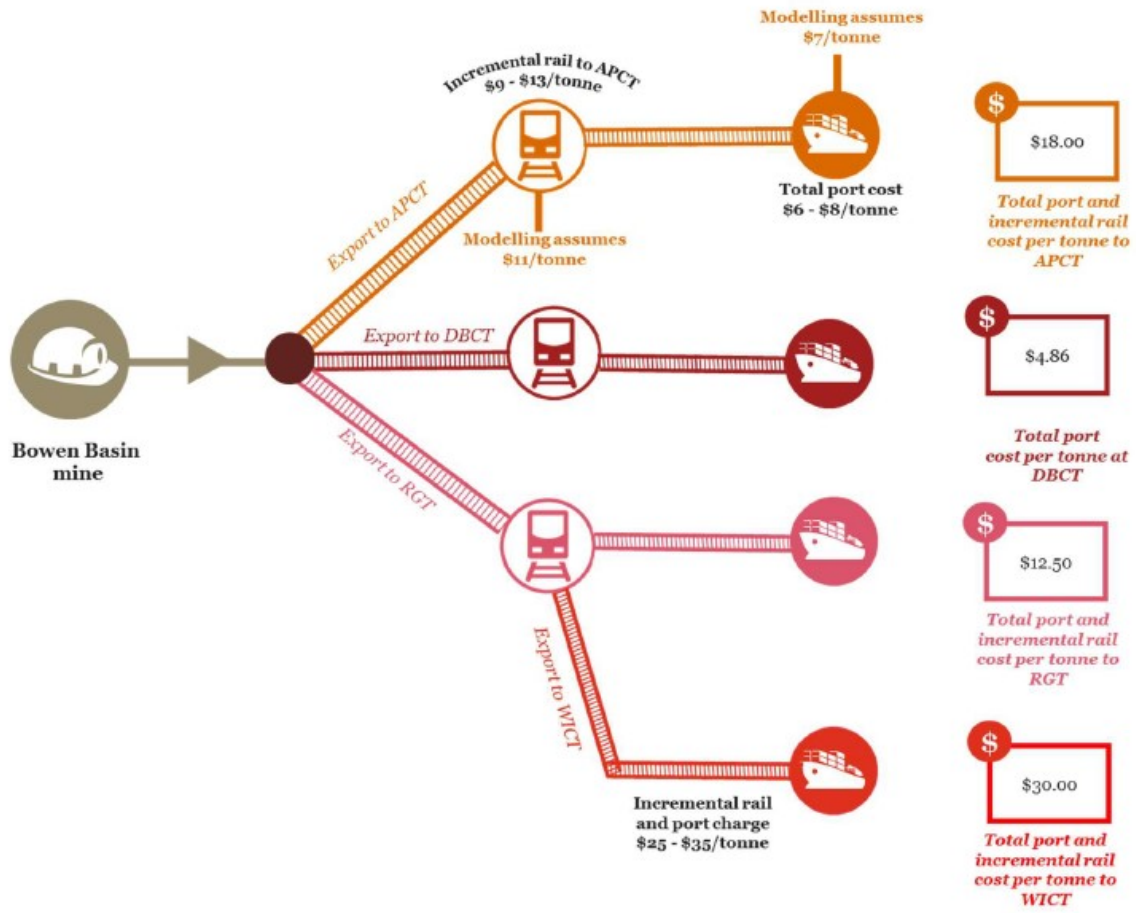
(iii) above rail haulage to the terminal.

Each of those costs is relevant, as the costs of meeting demand from a Goonyella producer through capacity at APCT, RGT or WICET clearly involves the costs of rail to move the coal to that terminal, in response to a SSNIP for the Service.

The data is presented as ranges to preserve confidentiality and because there is understood to be some differential pricing at APCT and RGT, and there are different rail costs

As shown in the PwC Report that demonstrates there are very substantial incremental costs of utilising other terminals for Goonyella capacity – compared to a SSNIP for the Service, which would be of the order of no more than $0.50 per tonne.

Figure 7: Calculation of cost of alternative export pathways for existing DBCT users



Source: PwC, based on confidential information provided by individual members of the DBCT User Group
Note: the default pathway assumption to DBCT assumes that the user has existing contracted access to both port and rail. The above/below rail costs incurred to haul coal from mine site to DBCT are not considered as part of the total port cost per tonne.

When those costs are plotted together, even against the extreme upper bound demand forecast of 95mtpa it again clearly demonstrates that DBCT (with a Zone 4 and 8x expansion) are clearly the lowest cost method of meeting that demand, as shown in the PwC Report.

However, those comparisons effectively assume that capacity is available and that capacity at those terminals is a substitute for the Service – which the DBCT User Group disputes for the reasons set out in section 5 of this submission.

Even if capacity is available, there will be limits on that such that the above modelling assuming that the demand could be met at other terminals at the existing costs being incurred by DBCT User Group members currently when utilising existing capacity is likely to be highly optimistic.

5.7 Dudgeon Point Coal Terminal

The DBCT User Group acknowledges that there were previous proposals for a common user but unregulated greenfield 90 mtpa coal terminal at the Port of Hay Point.

The DBCT User Group also understands that if a further stand-alone coal terminal was to be developed at the Port of Hay Point, Dudgeon Point is where it would be most logically and cost-effectively located. Therefore, when this submission refers to DPCT it is considering the substitution potential for a potential future terminal at Dudgeon Point (using the previous proposals as the best available proxy for the potential costs of such terminal).

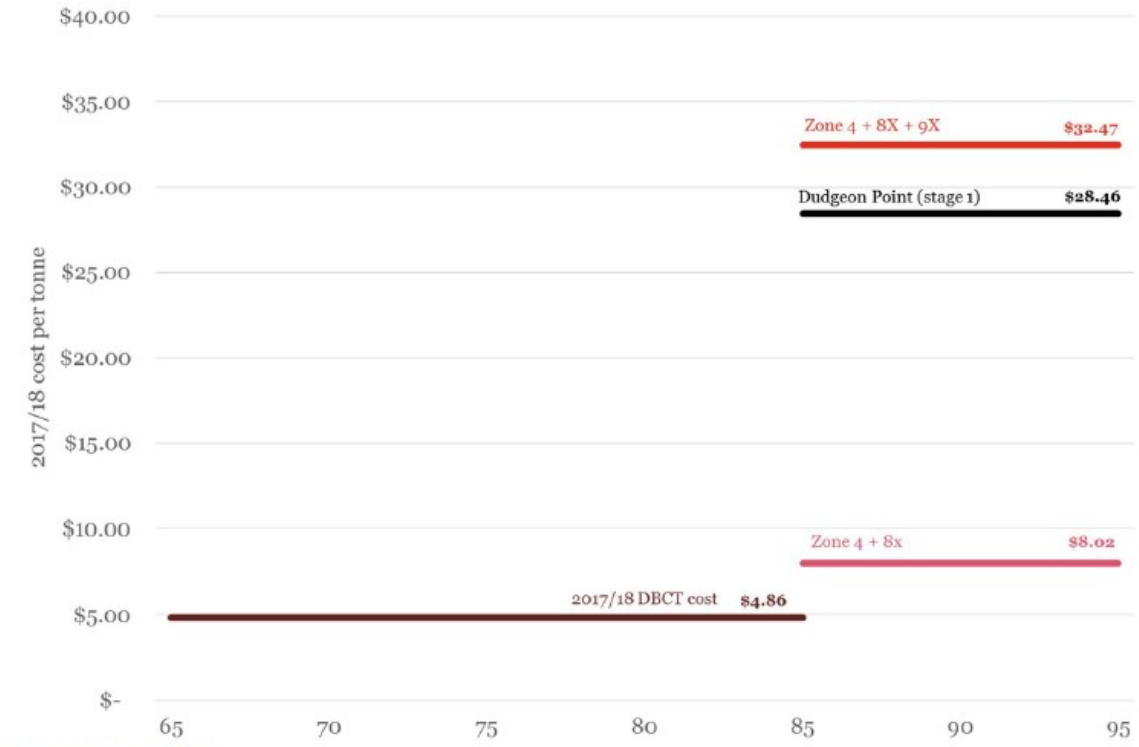
However, for the reasons set out below, the DBCT User Group considers that it is absolutely clear that there is no prospect of substitution between DBCT and DPCT during the proposed 15 year term of a continued declaration.

(a) Terminal costs

The PwC report contains estimates of the costs of coal handling services at a theoretical DPCT based on costs identified in 2012 studies, escalated for inflation.

Based on those costs, the PwC Report demonstrates conclusively that on any reasonable forecast of demand, the cost of DPCT is an order of magnitude higher than provision of the Service at DBCT (such that it would be economically irrational for a DBCT user to switch to DPCT in the event of a SSNIP in the price of the Service).

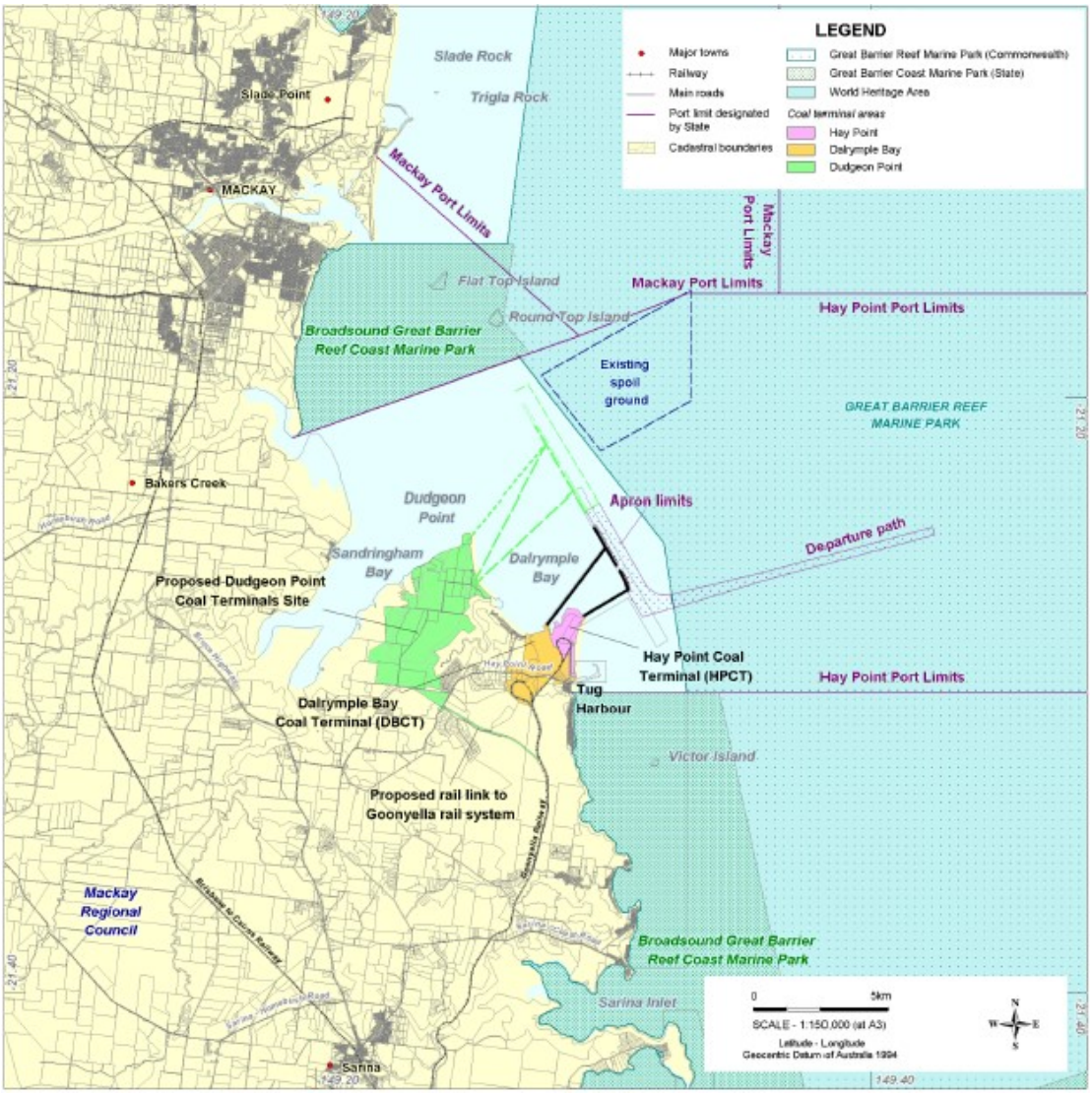
Figure 6: FY18 cost per tonne of incremental expansion options, scaled to capacity requirement (95 mtpa)



Source: PwC analysis

As shown in the second figure above, the costs of satisfying even an extreme upper bound projection of forecast demand (of 95 mtpa, which is well above all credible projections), the costs to a producer of using DPCT is materially in excess of the cost of existing capacity at DBCT (or the costs following the incremental Zone 4 and 8x expansions). Consequently it is very clear that even if there was no other constraints on substitution beyond price such that producers would switch terminals in response to changes in price, a SSNIP would never cause producers to switch from DBCT to DPCT.

The costs are based on the very conservative assumption of simply indexing forward the costs to develop DPCT. In that regard, the DBCT User Group particularly notes that since the DBCT proposal the *Sustainable Ports Development Act 2015* (Qld) has been enacted, which would actually prohibit the use of the existing dredging spoil ground identified in the Initial Advice Statement for DPCT (***DPCT Initial Advice Statement***) – such that the anticipated 11-15 million cubic metres of dredging material would need to be disposed onshore (at significant higher cost).



Source: North Queensland Bulk Points, Dudgeon Point Coal Terminals Project, Initial Advice Statement, September 2011

(b) Below rail costs

The Goonyella system already has a number of capacity constraints, such that significant below rail infrastructure upgrades would need to occur in order to ensure that new users could obtain the rail access required to export coal through any theoretical DPCT that was developed.

The Aurizon Network Development Plan 2016-17 (the ***Rail Development Plan***) indicates that the Goonyella system *'has only limited capacity remaining on the trunk*'.[13]

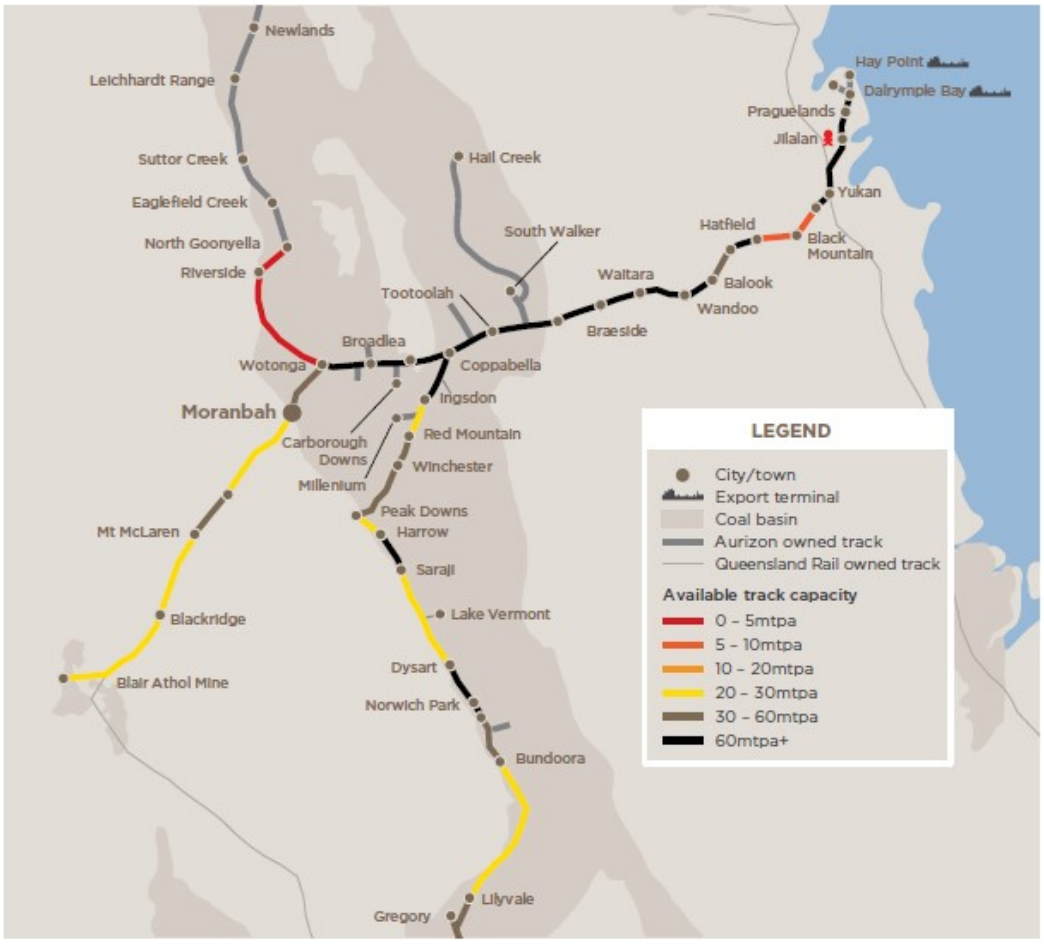
In addition, the Rail Development Plan contains the following figure showing capacity constraints on the Goonyella rail system. That should be viewed keeping in mind that:

(i) that figure shows the limits on theoretically available capacity based on Aurizon Network's previous network availability modelling (which does not truly reflect actual constraints – where paths are being lost in day of operations or maintenance closures due to constraints on track marked as unconstrained below); and

[13] Aurizon Network, *Aurizon Network Development Plan 2016-17* at 11.

(ii) a DPCT development would require upgrade, even on those optimistic theoretical capacity assessments, of all track that is not marked in black – as relevant to the location of the mines that are underwriting the theoretical demand for the DPCT.

Figure 7: Goonyella system available capacity and constraints



Source: Aurizon Network Development Plan 2016-17

Given that previous major network developments have involved substantial below rail costs beyond the regulated rail access tariffs (through contractual arrangements such as the Wiggins Island Rail Project Deed (the ***WIRP Deed***) and Goonyella to Abbot Point Expansion Project Deed (the ***GAPE Deed***)), the anticipated costs of any such below rail expansion would be significant – and importantly for the market definition assessment, incremental to the costs of using the existing Goonyella below rail system to export via DBCT.

This has been very difficult to model as the true scope of rail upgrades that would be required are nearly impossible to assess (without knowing with precision the locations of the mines from which such demand might eventuate). However, it means there is also a substantial incremental rail cost (which is not reflected in the PwC Report) which provides a further barrier to switching to DPCT.

The DPCT Initial Advice Statement envisaged significant new below rail infrastructure including rail loops, and train unloading facilities, and a dedicated rail connection to the Goonyella system including a rail overpass over Hay Point road.

(c) Unlikelihood of greenfield development

The DBCT User Group considers it is highly unlikely that DPCT will ever be developed – particularly not in the 15 year period being proposed as the period for which the declaration should be continued until a future review.

All plans to develop DPCT were cancelled by North Queensland Bulk Ports and the terminal proponents in 2014.

Since then, no attempt has been made to revise that proposal, which is unsurprising given the foreseeable demand projections (discussed further below in relation to criterion (b)) are well below being sufficient to underwrite even the first 30 mtpa stage of DPCT. Based on those projections, as demonstrated in the PwC Report modelling there is simply not sufficient demand to develop a new coal terminal with the high fixed costs, and higher capacity (at least 30 mtpa) than required even on the 'extreme upper band scenario' considered, that would be involved in a proposed DPCT.

In addition, the DBCT User Group consider that even if there was sufficient demand there is real uncertainty about whether any proponent would:

(i) receive the regulatory and environmental approvals required for such a terminal's development and related activities – such as significant dredging work (noting that the *Sustainable Ports Development Act 2015* (Qld) will now prevent the offshore disposal of dredging material that was originally anticipated[14] thereby dramatically increasing the costs for any such development);

(ii) receive the required port land from North Queensland Bulk Ports; and

(iii) receive the equity and debt financing required for such a major development unless it was fully underwritten by long term take or pay requirements – which is likely to make it very difficult to contract the required demand in the first place (taking into account the foreseeable demand projections discussed in relation to criterion (b) further below).

Accordingly, the DBCT User Group does not consider that any potential DPCT is, or is likely to be within the proposed 15 year declaration period, a probable supplier in the same market as the Service as (consistent with the Staff Issues Paper) it is not a facility which is likely to be in operation during the declaration period.

(d) Co-shipping opportunities

Co-shipping arrangements (where coal of different producers are shipped to the same customer in different holds of the same vessel) are highly sought after by metallurgical coal producers.

The fact that the vast majority of metallurgical coal (for non-BMA/BHP Mitsui shippers) is exported through DBCT, and that DBCT shippers produce a range of metallurgical coal qualities (including premium hard coking coals and PCI coal), makes shipping through DBCT highly desirable.

DPCT operates as a 'cargo assembly' port, with cargos being assembled to meet shipping rather than relying on dedicated stockpiles for each producer. That allows the throughput to consist of a much larger range of metallurgical coal products than would otherwise be the case. The DBCT User Group understands there is currently approximately 55 different coal products shipped through DBCT each month from approximately 20 mines.

[14] See North Queensland Bulk Ports, Dudgeon Point Coal Terminal Projects, Initial Advice Statement. September 2011

The same multi-cargo options are not available through other export terminals (and they would not be anticipated to be available through any newly developed DPCT given that the vast majority of existing DBCT shippers would be assumed to continue to ship under their existing DBCT take or pay user agreements).

Co-shipping is important as:

(i) it is sought by steel mill customers who wish to have a particular coking coal blend – who through co-shipping are able to blend the coals themselves at the destination port / steel mill; and

(ii) for smaller producers, it allows shipment where their individual production is sufficient to fill a hold of a vessel, rather than a whole vessel (and given the other users who export through DBCT there are other metallurgical coal producers who the customer would request fill the other hold of the vessel).

It would theoretically be possible for a customer to charter a vessel to undertake a 'two port' load (loading at both DBCT and another coal terminal) to load multiple cargoes, but that involves material additional costs.

(e) Take or pay contracts

Rail haulage and rail access agreements are typically entered on at least a 10 year take or pay basis – such that switching terminals is a choice that can only ever arise at the point of re-contracting (and where that timing for re-contracting can be aligned with the term of the DBCT User Agreements which are also typically 10 year take or pay contracts initially with 5 year 'evergreen' renewal options thereafter).

The consequence of those existing take or pay contracts, is that producers will not switch away from DBCTM in response to a SSNIP where such switching would simply expose them to substantial take or pay liabilities under ether their DBCT User Agreement or their corresponding rail contracts.

Given that the expiry dates for each DBCT User's existing rail and port contracts are not aligned, this means there is only ever a marginal quantity of tonnage at any particular time which has the potential to switch terminals.

5.8 Hay Point Coal Terminal

The DBCT User Group considers that it is clear that the services provided by HPCT are not in the market for the Service provided by DBCT.

(a) No evidence of any past substitution

HPCT commenced operations in 1971, before the development of DBCT. HPCT is owned by BMA with a current nameplate capacity of 55 mtpa. Since its construction, the terminal has been a dedicated, single-user coal loading facility owned by BMA, which has been used since its development to export coal production from BMA mines (and on certain occasions BMC mines, in circumstances where BHP has an 80% interest in BMC's operations).

HPCT was developed by BMA's predecessors to service the demand for coal handling services for coal produced in the Central Queensland Coal Associates' mines located in the Goonyella region of the Bowen Basin.

Since then it has remained efficient for BMA to maintain the dedicated, single-user character of HPCT, particularly in relation to:

(i) efficiently coordinating mining operations, coal handling services at the HPCT and BMA's above rail operations, so as to eliminate or reduce interface inefficiencies between those functions;

(ii) maximising capacity utilisation and operational simplicity and flexibility at HPCT (by avoiding multi-user interface requirements and coordinating mine production, rail and loading terminal operations where required, for example, being able to "surge" production and coal loading capacity in response to outages or other events); and

(iii) maximising flexibility and responsiveness in identifying and implementing capital improvements and capacity expansions at HPCT.

In the interests of maintaining those efficiencies, BMA advises that it anticipates continuing to utilise all of HPCT's capacity for its own operations (and possibly for BMC production, at times) and will not offer coal loading services at HPCT to third party producers.

Consistent with that advised position, a number of DBCT Users have investigated the potential to utilise capacity at HPCT at different points of time without HPCT ever having provided services to such third party shippers.

(b) Insufficient terminal capacity

Based on the export figures published by North Queensland Bulk Ports, HPCT is currently operating at or near full capacity – at ~49 mtpa annualised rate for FY2018 to March 2018, compared to a current nameplate capacity of 55 mtpa.

As noted above, any theoretical difference between throughput and name plate capacity is required by BMA (and BMC) to allow for volume fluctuations, issues in other parts of the coal supply chain and capacity to surge exports – such that there is not reasonably anticipated to be any surplus capacity at HPCT in the foreseeable future.

(c) No likelihood of future substitution / terminal capacity required by terminal owner

The DBCT User Group acknowledge and agree with the Minter Ellison advice that the key issue for market definition where there is an absence of transactions is whether that state of affairs will continue – measured particularly by considering whether there are characteristics of HPCT that will continue to prevent or constrain substitution.

In particular at paragraph 4.10 of the Minter Ellison advice it states:

> *If there has been no third party access in the past, the market definition exercise calls for an inquiry into why this is so, and what this means for the possibility of substitution between the two facilities in the future. For example, in the absence of third party access to HPCT a consequence of transactions being 'temporarily dormant', or is this a situation that is likely to endure?*

For the reasons set out above, the DBCT User Group considers it is obvious that the efficiency incentives for BMA to continue to use the HPCT as a single-user, dedicated coal loading facility for the BMA mines will be enduring. Consequently, the non-BMA/BHP Mitsui Coal members of the DBCT User Group do not regard HPCT as being an available, substitutable source of coal handling service for users of the Service provided at DBCT at any point during the proposed declaration period.

Accordingly the DBCT User Group considers it is clear that BMA will continue to utilise HPCT exclusively for BMA operations (and potentially BMC operations, where required). There is no likelihood of a DBCT User being able to substitute coal handling services from HPCT for DBCT coal handling services in response to a SSNIP in the cost of the Service. Specifically,

consistently with the definition of "market" in section 71(2) of the QCA Act, there is no evidence that coal loading services from DBCT obtained by any users of DBCT (which are not BHP affiliates) are "*able to be substituted for … services*" provided by HPCT.

(d) Market definition in circumstances of asymmetric substitution

The DBCT User Group acknowledges that BMA and BMC have acquired a small amount of capacity from DBCT.

However, this does not point to the coal loading services at HPCT being in the market for the Service (provided by DBCT).

There is clear asymmetry in the substitution possibilities in this context.

On the one hand, coal loading services at the common-user facility of DBCT may be substitutable (from the perspective of BMA / BMC) for the coal loading services at the HPCT which are currently used by BMA.

However, on the other hand, for the reasons set out above, there is no likelihood of coal loading services at the single-user, dedicated HPCT facility being substitutable for the coal loading services at the common-user DBCT, by any user of that facility (other than BMA/BMC).

In this context, where section 71(2) of the QCA Act requires that the market must include the Service and other services which are "able to be substituted for, or are otherwise competitive with", the Services, the relevant market will be the Hay Point common-user coal handling services market (supplied from the DBCT facility), without services from the HPCT facility.

Accordingly, it would constitute inappropriate and flawed reasoning to alter the market definition based on the one-sided substitution potential, where there is no potential for a DBCT User to substitute (i.e. switch to using HPCT) in response to a SSNIP for the Service (or for that matter even more dramatic increases in price) and the services provided at HPCT do not compete with the Service.

This issue of asymmetric substitution is not uncommon in market definition.

For example the ACCC Merger Guidelines (2008) provide:

> ***Asymmetric Substitution***
>
> *4.32 Substitution possibilities are not necessarily symmetric. … Asymmetric demand side substitution occurs when substitution between two products only occurs in one direction. For example, buyers of luxury cars may substitute to more "standard" cars in response to an increase in price of luxury cars, but the oppose may not be the case.*

In short, substituting to HPCT is not an option open to almost all users of the DBCT coal handling services.

The ACCC has also applied this issue in determining market definitions in practice (see the public competition assessment of National Australia Bank and AMP's proposed acquisitions of AXA Asia Pacific Holdings Limited (9 September 2010) for an example of these principles being applied).

(e) Purposive approach to market definition

As noted in section 3.5, a purposive approach should be taken to market definition.

The stated object of Part 5 of the QCA Act (under section 69E QCA Act) is as follows:

The object of this part is to promote the economically efficient operation of, use of and investment in, significant infrastructure by which services are provided, with the effect of promoting effective competition in upstream and downstream markets

As noted above, HPCT is a single-user, dedicated facility and the reasons for that position are enduring.

It would run completely counter to the regime's very purpose for services from such a single-user dedicated facility, which are not substitutable for users of Service, to be included in the "market" (as defined) for that Service.

The "efficient operation or, use of, and investment in" DBCT by which "coal handling services at DBCT "are provided", are not impacted by the services provided to BMA at HPCT, and hence, purposively, services from HPCT should purposively be excluded from the market for the Service (namely the market for Hay Point common user coal handling services).

(f) Conclusion

Accordingly, given:

(i) there is no history of substitution; and

(ii) for the reasons noted above, the circumstances which have led to that are enduring such that services at HPCT are not "able to be substituted for" the Service,

the DBCT User Group considers that the market in which the Services are provided is the Hay Point common user coal handling services market, which does not include the supply of coal handling services at HPCT.

5.9 Abbot Point Coal Terminal

(a) Overview of cost differences

The DBCT User Group consider that it is clear that the services provided by APCT are not in the same market as the Service provided by DBCT.

The PwC Report demonstrates that there is an incremental cost difference for a Goonyella mine of approximately $13 per tonne to export coal via APCT instead of DBCT, which is principally attributable to the higher incremental rail costs. That is obviously such a significant cost difference that a SSNIP in the cost of the Service would not cause substitution to coal handling services provided at APCT.

(b) Existing Goonyella catchment user of APCT

The DBCT User Group acknowledge that there are current coal producers with mines in the Hay Point catchment / Goonyella rail system region, who currently have a contract for rail capacity to, or port capacity, at APCT.

While those agreements are confidential, the QCA's Final Decision on DBCTM's 2015 Access Undertaking contained the following table (extracted from a previous FIIG research note).

APCT contracted user	*Contracted capacity (mtpa)*	*Contract end date*
Xstrata Coal Queensland	13	30/06/2020
Queensland Coal	11	30/06/2028
Lake Vermont	6	30/06/2028
Byerwen	5	30/06/2029
BHP Mitsui	4	31/12/2026
QCoal	4	30/06/2027
Sonoma JV	4	30/11/2024
Middlemount	3	30/06/2027

Source: Queensland Competition Authority, Final Decision

However, of those users:

(i) The relevant Xstrata (now Glencore) mines, Byerwen, QCoal and Sonoma are in the Abbot Point catchment (with modelling by Castalia confirming that their lower costs supply chain option is via APCT);

(ii) The APCT User Agreement with Queensland Coal is understood to have been terminated. Rio Tinto holds a below rail contract, but that is recognised as an onerous contract in its accounts as Rio Tinto has no coal production which could utilise the below rail contract rights (the contract is not being assigned as part of the recently announced sales of its Kestrel and Hail Creek mines and Valeria and Winchester South projects) and no related above rail contract;

(iii) Each of the only remaining users (Lake Vermont, BMC and Middlemount) have indicated that:

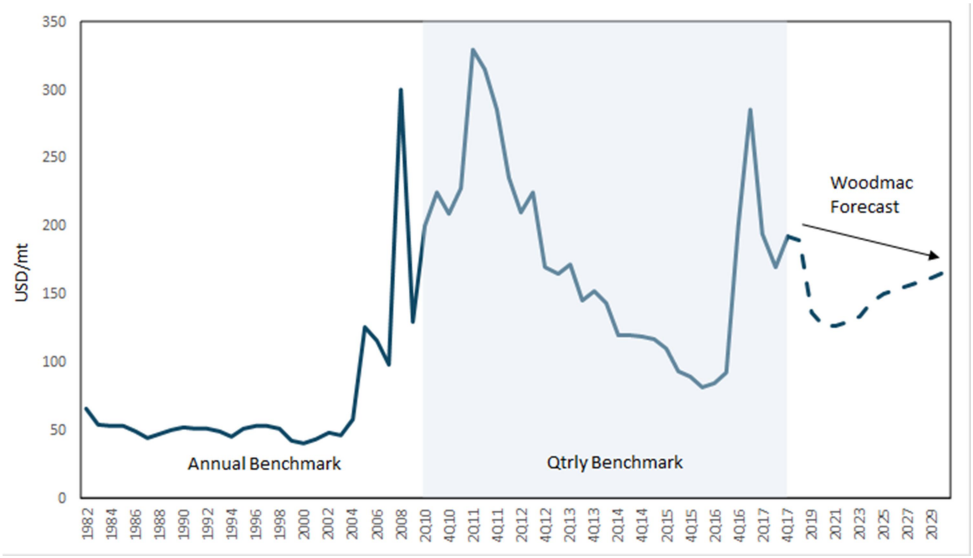
(A) they were effectively forced to acquire APCT capacity due to:

(1) DBCTM refusing to expand DBCT (in order to preference / promote its unregulated DPCT development, which as noted above is not projected to be developed based on foreseeable demand); and

(2) Aurizon Network preferring the development of its Goonyella to Abbot Point Expansion project (***GAPE***) under which it earned the GAPE Fee – above the regulatory return it would have earned on a brownfield incremental expansion of the Goonyella system;

(B) long term coal price projections at the time were significantly higher than they currently are or are projected to be in the foreseeable future.

To demonstrate the final of those points, the below is a WoodMackenzie coking coal price projection (which demonstrates the high price environment and dramatic upward trend in prices which was occurring in 2010 when the GAPE Deeds were signed).



Source: WoodMackenzie, February 2018

Historical evidence of a small volume of contracted capacity commitments at APCT, by a small number of miners operating closer to the Goonyella railway system, does not point to the conclusion that coal handling services at APCT are, or will over the declaration period be, sufficiently close substitutes in response to a SSNIP for the Service, as to be in the one market.

Most importantly, looking forward, the demand environment (and long term coal price – as show above) which is projected over the next 15 years (the DBCT User Group's proposed declaration period), is such that there is no projection of dramatic long term coal price increases to the peak 'mining boom' levels, such that this sort of cross-system railing is not anticipated to ever occur again.

That type of marginal substitution does not make the Service at DBCT and coal handling services at APCT the type of close substitutes that would mean they are in the same market.

(c) Alternative terminal costs

The exact costs of APCT are confidential (and in some cases still not determined), as prices are not publicly available, and as discussed elsewhere in this submission the DBCT User Group understands the prices may be different due to:

(i) Individual users having reached individual settlements with Adani in relation to the recent price review; and

(ii) A number of users still being in arbitration proceedings against Adani in relation to the recent price review.

However, the PwC modelling of the DBCT User Group data suggests a range of $6-8 per tonne of port costs.

The issue is therefore not so much the actual costs of APCT as the uncertainty of future pricing and the high incremental rail costs discussed below (which ultimately produce such a significant incremental cost difference that a SSNIP in the cost of the Service would not cause substitution to coal handling services provided at APCT).

(d) Below rail costs

In order for a mine located near the Goonyella system (in what is referred to as the Hay Point catchment in this submission), to export coal via APCT it would need to use the GAPE project. The cost of using that part of the rail network is both:

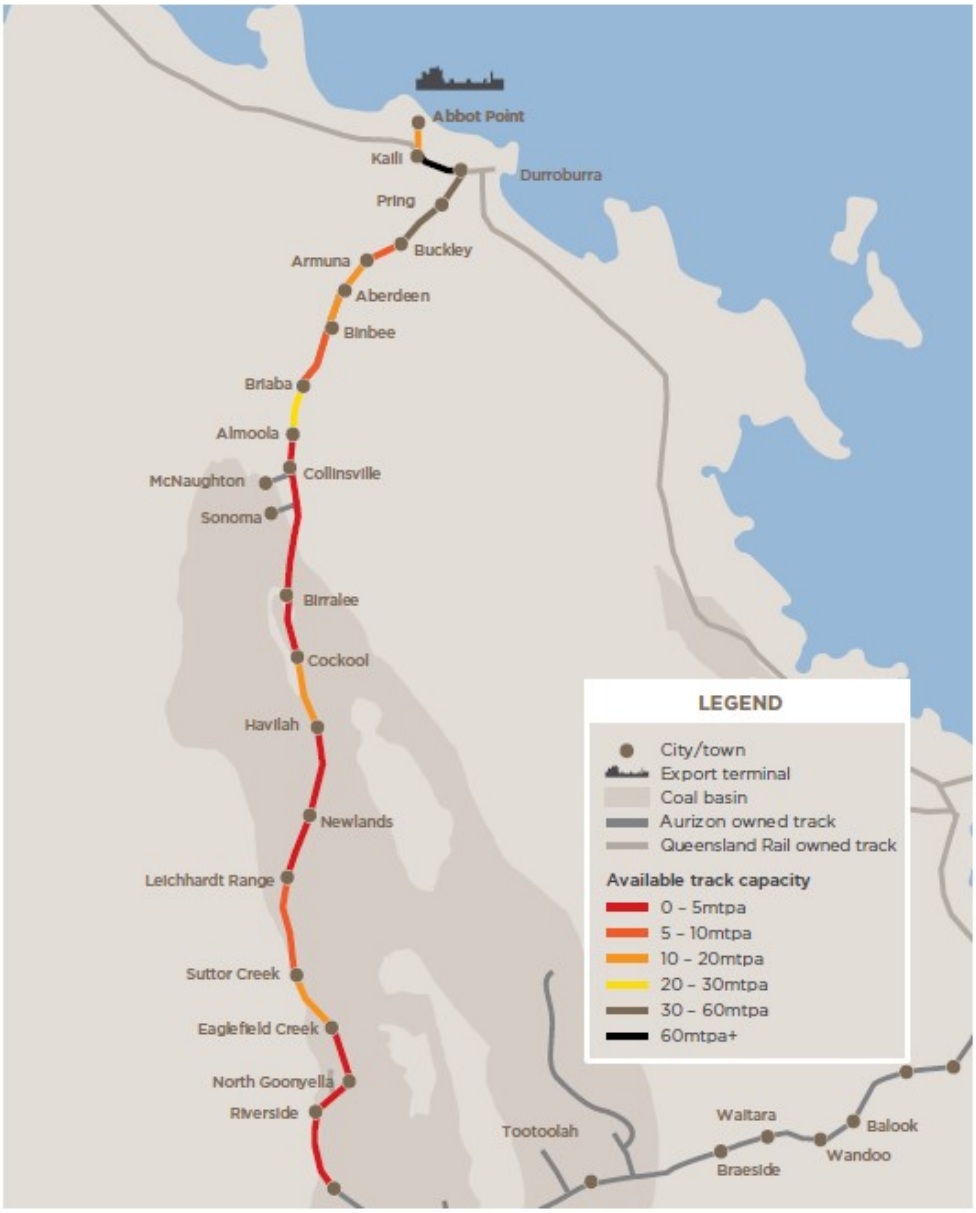
(i) the regulated return on use of that infrastructure (which for existing and likely DBCT Users is greater, together with the Newlands system regulated costs, than the below rail costs to DBCT principally due to the longer distances travelled); and

(ii) the 'GAPE Fee', which provides Aurizon Network with a return above the regulated pricing approved by the QCA.

This is one of the main drivers of the incremental rail cost differential ($9-13 per tonne) identified in the PwC Report.

In addition, as shown in the figure below from Aurizon Network's 2016-17 Network Development Plan, there are very significant capacity constraints for railing north to Abbot Point, such that for anything other than the most marginal of changes, further below rail capacity expansions would be required (increasing the cost again, beyond that which has been modelled in the PwC Report).

Figure 6: Newlands system available capacity and constraints



Source: Aurizon Network Development Plan 2016-17

(e) Above rail costs

As is evident from the network maps contained earlier in this submission, for Goonyella mines there is a significant additional haulage distance for export through APCT relative to export through DBCT. That additional distance translates to a substantially higher above rail haulage charge.

The haulage charge is also exacerbated further because of the smaller payload trains on the Newlands system (6,800 mt payload, 84 wagon trains compared to the 10,000 mt payload, 126 wagon trains operated in the Goonyella).

(f) Below rail network differences

The Goonyella system involves overhead electric lines allowing for both electric and diesel locomotives, whereas the Newlands system (to Abbot Point) and GAPE (Goonyella to Abbot Point Expansion) component of the rail network has no overhead electric lines and therefore can only be operated on by diesel locomotives. Even assuming alternative below rail and port access can be obtained, there may be limits to what rail haulage providers with electric rolling stock (of which Aurizon has a substantial fleet) will be able to do in terms of switching to the Newlands system without needing to pass on substantial costs to coal users.

In addition, the 'standard' train size utilised across the systems is different. The Goonyella rail system operates with a 10,000 mt payload train, whereas the Newlands system operates with a 6,800 mt payload train. As a result, to move the same amount of Goonyella tonnes through the Newlands system would require either:

(i) more trains (resulting in greater haulage costs) which would likely then require network expansions in the Newlands system; or

(ii) major network expansions in the Newlands system to allow all users to use larger payload trains.

(g) Terminal capacity required by terminal owner

The DBCT User Group understand that Adani (which is now the lessee and operator of the ACPT) is intending to use any surplus capacity that exists at APCT for its Carmichael coal mine project.

For example, North Queensland Bulk Ports 2016-2017 Annual Report[15] states:

> *Existing unused capacity at Adani Abbot Point Terminal 1 is expected to be utilised in the initial stages of the Carmichael Mine and Rail Project.*

There is no access policy or voluntary undertaking in place regarding the provision of open access to APCT and the arrangements under which APCT was privatised do not ensure that APCT will continue to be an open access coal terminal to other users. Consequently, if APCT wishes to reserve capacity for its own future mining project (as it is understood to be doing) there are no contractual or regulatory restrictions on it doing so.

It is, for example, understood that the vast majority of the capacity which was previously contracted by Rio Tinto has been contracted by Adani from 2022 for its Carmichael coal mine project.

The DBCT User Group anticipate that it is profit maximising for Adani to seek to meet its own potential capacity needs by utilising the existing APCT terminal rather than being required to incur significant capital on development of greater capacity at the Port of Abbot Point.

[15] *North Queensland Bulk Ports Corporation*, Annual Report 2016-2017 at 11.

This factor alone means that there is no likelihood of substitution between the Service and coal handling services at APCT.

(h) Co-shipping opportunities

As noted above in relation to other terminals, co-shipping arrangements (where coal of different producers are shipped to the same customer in different holds of the same vessel) are highly sought after by metallurgical coal producers.

A far smaller proportion of APCT's throughput is metallurgical coal, and that proportion will only decrease with time as existing production that is exported through APCT is potentially replaced with thermal coal from Adani's Carmichael coal project, and the Goonyella catchment users return to DBCT on expiry of their initial APCT/GAPE arrangements.

For a metallurgical coal producer with smaller production volumes or who has steel mill customers which seek a specific combination of metallurgical coal for their coal blend, coal handling services APCT as a terminal that provides much lesser co-shipping options is not a close substitute for the Service.

(i) Take or pay contracts

As noted above in relation to other terminals, rail haulage and rail access agreements are typically entered on at least a 10 year take or pay basis – such that switching terminals is a choice that can only ever arise at the point of re-contracting (and where that timing for re-contracting can be aligned with the term of the DBCT User Agreements which are also typically 10 year take or pay contracts initially with 5 year 'evergreen' renewal options thereafter).

The consequence of those existing take or pay contracts, is that producers will not switch away from DBCT in response to a SSNIP where such switching would simply expose them to substantial take or pay liabilities under either their DBCT User Agreement or their corresponding rail contracts.

Given that the expiry dates for each DBCT users' infrastructure contracts are not aligned, this means there is only ever a marginal quantity of tonnage at any particular time which has the potential to switch terminals.

(j) Conclusion

Accordingly, given the substantial additional costs producers would incur in shipping via APCT instead of DBCT, and all of the non-cost related constraints to substitution noted above , the DBCT User Group considers that the market in which the Services are provided is the Hay Point common user coal handling services market, which does not include the supply of coal handling services at APCT.

5.10 Gladstone Terminals - RG Tanna and WICET

The DBCT User Group considers that it is clear that the services provided by either of the coal terminals in the Port of Gladstone (RGT and WICET) are not in the same market at the Service provided by DBCT.

(a) Overview of cost differences

The DBCT User Group consider that it is clear that the services provided by RGT and WICET are not in the same market as the Service provided by DBCT.

The PwC Report demonstrates that there is an incremental cost difference for a Goonyella mine of approximately:

(i) $12.50 per tonne to export coal via RGT (noting that the incremental cost is likely to be higher for non-foundation users given the differential pricing approach that applies at RGT); and

(ii) $30 per tonne to export coal via WICET

instead of DBCT.

That is obviously such a significant cost difference that a SSNIP in the cost of the Service would not cause substitution to coal handling services provided at RGT or WICET.

(b) Terminal costs

The terminal costs at WICET are substantially higher than any other coal export terminal. WICET was developed at a time of very high construction and development costs and the insolvency of a number of its foundation customers has resulted in the funding burden of that development being socialised across the remaining customers (thereby increasing charges further).

These charges alone mean that WICET is not an economically viable substitute for DBCT.

The terminal costs at RGT are more comparable to those at DBCT, however:

(i) the DBCT User Group understands that Gladstone Ports Corporation Limited does differentiate in terms of both a differential price and differential security arrangements between foundation and new customers at RGT, such that the cost to a new user are likely to be higher than those assumed in this submission; and

(ii) as noted below the rail costs cause a substantial incremental cost difference.

(c) Below rail costs

In order for a mine located near the Goonyella system (in what is referred to as the Hay Point catchment in this submission), to export coal via WICET it would need to use the Wiggins Island Rail Project (***WIRP***). The cost of using that part of the rail network is both:

(i) the regulated return on use of that infrastructure (which for existing and likely DBCT Users is greater, together with the Blackwater system regulated costs, than the below rail costs to DBCT principally due to the longer distances travelled); and

(ii) the 'WIRP Fee', which provides Aurizon Network with a return above the regulated pricing approved by the QCA.

(d) Above rail costs

As is evident from the network maps contained earlier in this submission, for Goonyella mines there is a significant additional haulage distance for export through Gladstone terminals relative to export through DBCT. That additional distance translates to a substantially higher above rail haulage charge.

(e) Below rail network differences

In addition, there 'standard' train size utilised across the systems is different. The Goonyella rail system operates with a 10,000 mt payload train, whereas the Blackwater system operates with a 8,500 mt payload train. As a result, to move the same amount of Goonyella tonnes through the Blackwater system would require either:

(i) more trains (resulting in greater haulage costs) which would likely then require network expansions in the Blackwater system; or

(ii) major network expansions in the Blackwater system to allow all users to use larger payload trains.

(f) Insufficient terminal capacity

While the exact contracted capacity is not publicly known, the DBCT User Group understands that RGT is contracted close to its capacity (since the Barney Point coal terminal permanently ceased to operate in 2016).

For a coal producer to switch terminals there would need to be long term capacity available at the alleged alternative terminal.

As such any material switching would cause the need for a capacity expansion, which would (through high capital costs), increase even further the cost differentials identified for RGT in the PwC Report.

(g) Co-shipping opportunities

As noted above in relation to other terminals, co-shipping arrangements (where coal of different producers are shipped to the same customer in different holds of the same vessel) are highly sought after by metallurgical coal producers.

A far smaller proportion of RGT and WICET's throughput is metallurgical coal.

For a metallurgical coal producer with smaller production volumes or who has steel mill customers which seek a specific combination of metallurgical coal for their coal blend, coal handling services at RGT and WICET as a terminal that provides much lesser co-shipping options is not a close substitute for the Service.

(h) Take or pay contracts

As noted above in relation to other terminals, rail haulage and rail access agreements are typically entered on at least a 10 year take or pay basis – such that switching terminals is a choice that can only ever arise at the point of re-contracting (and where that timing for re-contracting can be aligned with the term of the DBCT User Agreements which are also typically 10 year take or pay contracts initially with 5 year 'evergreen' renewal options thereafter).

The consequence of those existing take or pay contracts, is that producers will not switch away from DBCT in response to a SSNIP where such switching would simply expose them to substantial take or pay liabilities under ether their DBCT User Agreement or their corresponding rail contracts.

Given that the expiry dates for each DBCT users' infrastructure contracts are not aligned, this means there is only ever a marginal quantity of tonnage at any particular time which has the potential to switch terminals.

(i) Conclusion

Accordingly, given the substantial additional costs producers would incur in shipping via RGT or WICET instead of DBCT, and all of the non-cost related constraints to substitution noted above, the DBCT User Group considers that the market in which the Services are provided is the Hay Point common user coal handling services market, which does not include the supply of coal handling services at RGT or WICET.

6 Defining the Dependent Markets

6.1 Identifying the Dependent Markets

Criterion (a) requires that declaration should promote a material increase in competition in at least one market other than the market for the service.

Consequently, the DBCT User Group has considered numerous upstream and downstream markets in which competition may be promoted including:

(a) Coal markets (metallurgical and thermal coal);

(b) Hay Point catchment coal tenements market;

(c) DBCT secondary terminal capacity trading market;

(d) Central Queensland rail haulage market;

(e) rail access market; and

(f) Various mining inputs and services markets.

The DBCT User Group's submissions focus on clearly defining the three markets where the DBCT User Group consider it is absolutely clear that access (or increased access) on reasonable terms and conditions as a result of declaration would promote a material increase in competition, being:

(a) the Hay Point catchment coal tenements market;

(b) the DBCT secondary terminal capacity trading market; and

(c) the central Queensland coal haulage market.

To the extent that the QCA formed the view that criterion (a) would not be satisfied in those markets (which, to be clear, the DBCT User Group cannot envisage how that would occur), the DBCT User Group would be able to provide submissions on further dependent markets where it considers there would be a material promotion of competition.

In particular, the DBCT User Group has identified a series of other dependent markets which have not been considered in detail in this submission, but in which competition is likely to be impacted in some way:

(i) Coal shipping services market;

(ii) Geological and drilling services market;

(iii) Construction services market;

(iv) Mine operation and maintenance services market; and

(v) A series of mining input markets (particularly explosives).

6.2 Market Definition – Hay Point catchment coal tenements market

(a) Product dimension – a tenements market

It was accepted by the decision of the Australian Competition Tribunal in *In the Matter of Fortescue Metals Group Limited*[16] that there was an iron ore tenements market that was separate from the market for supply of iron ore. That finding was not challenged in any of the subsequent appeal or review proceedings.

[16] [2010] ACompT 2

That iron ore tenements market was held to involve the supply and acquisition of iron ore tenements for prospecting and exploration (but excluding transactions involving mining leases / production tenements).

As is noted at [1096] of the Tribunal's decision:

> *The principal reason for contending that there is an iron ore tenements market is that there are transactions in tenements in the Pilbara, including those which have Ministerial consent to prospect and explore for iron ore. The transactions are of various kinds, some direct and some indirect. A direct transaction includes a transfer of the whole or a part of a licence (eg a farm-in or sublease agreement or a joint venture arrangement). Examples of indirect transactions include the acquisition of a significant shareholding in a corporation which holds a tenement.*

The Tribunal regarded as *'a key piece of empirical evidence upon which a market may be found to exist'* the existence of transactions in tenements (see [1110]).

The same reasoning applies to coal tenements.

That was accepted in the Newcastle shipping channel declaration proceedings where the NCC final recommendation and the declaration decision of the relevant Minister accepted distinct *'markets for the acquisition and disposal of exploration and/or mining authorities'* (see Statement of Reasons at 2)

There are clear examples of coal exploration and development transactions of this type occurring for tenements for which export by DBCT is now occurring (Isaac Plains) or for which future export using DBCT is highly likely, such as:

Date (of announcement)	**Project**	**Purchaser**	**Vendor**	**DBCT capacity included in transaction**
July 2015	Wotonga / Isaac Plains East (exploration project)	Stanmore	Peabody	No
July 2015	Isaac Plains (previously operating mine on care and maintenance at time of acquisition)	Stanmore	Vale / Sumitomo	Yes
May 2016	Olive Downs (exploration project)	Pembroke Resources	Peabody / CITIC	No
July 2016	Blair Athol (on care and maintenance)	TerraCom	Rio Tinto	No
December 2016	Broadlea (previously operating mine	Fitzroy Australia Resources	Vale	No – capacity was transferred in connection with

	on care and maintenance at time of acquisition)			contemporaneous acquisition of the operating Carborough Downs
September 2017	Lenton (exploration project)	Lenton Joint Venture (New Hope 90%)	Peabody	No
February 2018	Hillalong East	Bowen Coking Coal	Rio Tinto and Cape Coal	No
March 2018	Winchester South (exploration project)	Whitehaven	Rio Tinto	No
March 2018	Exploration rights 60km SE of Middlemount	Metroof Minerals (named as preferred developer for coal release)	Queensland Government	No
March 2018	Exploration rights 25km SE of Middlemount	Sojitz Coal (named as preferred developer for coal release)	Queensland Government	No

Source: Publicly available announcements of each transaction or tender outcome, DBCT User Group confirmations

It is noticeable how distinct this market is from the sale of operating mines (which typically including rail and port capacity rights), which the DBCT User Group acknowledges would be more closely related to coal markets.

The Tribunal in *In the Matter of Fortescue Metals Group Limited*[17] went on to say (DBCT User Group emphasis added):

> *1110. Another piece of evidence is the assumption (we think properly made) that when an exploration licence is granted, the holder has in mind the possibility that it might deal with its interest in the licence, at least by way of subdivision of the interest such as, for example, by a partial sale, joint venture or a farm-in arrangement. The assumption is properly made because of the frequency of those arrangements in the Pilbara and elsewhere. It may also be assumed that the value of the interest depends upon the value of the resource, which is itself affected by the world price for iron ore.*
>
> *1111. In addition, there is evidence that mining companies explore tenements for the purpose of their exploitation by disposition rather than by mining*
>
> *…*

[17] [2010] ACompT 2

1117. ***What these dealings in tenements and the statements of the mining companies show is that there is both a demand for tenements and sellers willing to meet that demand, including sellers who do not carry out mining operations. It is difficult in those circumstances to deny that there is a functionally distinct market for iron ore tenements****.*

Consistent with that reasoning, the DBCT User Group considers it is absolutely clear that there is a separate market for coal tenements that is functionally distinct from the relevant coal markets.

The DBCT User Group also particularly relevantly notes that the Queensland Governments application for certification of the DBCT Access Regime specifically referred to the coal tenements market as a market in which a promotion of competition would occur through the continuing declaration of the Service, noting that:[18]

> *Access to DBCT is necessary to permit effective competition in upstream and downstream markets. In particular, access to the terminal is necessary to promote competition in the market for Queensland coal tenements and the coal export market.*

Similarly, the ACCC's proceedings in relation to Cascade Coal involved a tender process for coal exploration tenements and allegations of anti-competitive cartel conduct that limited competition for the tenements between tenderers to that process that would otherwise have occurred.

Consequently, the DBCT User Group considers that it is clear as a matter of practice and evidence, and as a matter of economic and legal reasoning that there is a distinct tenements market.

(b) Overview of geographic dimension – Hay Point catchment

The question then becomes what is the geographic scope of that tenements market.

The DBCT User Group themselves consist of a series of entities who are investors / acquirers in this market. As shown in the table above, a number of them have been active in recent transactions.

Consequently they are in fact the best placed stakeholder to provide views on which coal tenements would be considered close substitutes for each other.

Their unanimous and firm view is that there is a separate Hay Point catchment market for coal tenements.

(c) There is not a global market for coal tenements

While it is true that coal tenements exist in other jurisdictions internationally, they are clearly not close substitutes for coal tenements in Australia as a result of differences in:

(i) the certainty and transparency of the existing regulatory regime for mining and development of mining projects;

(ii) sovereign risk and political certainty and stability;

(iii) material freight advantages of Australian coal mines and ports to Asian export markets;

(iv) infrastructure cost advantages to other coal exporting regions given the economies of scale advantages of coal exports; and

(v) coal quality (particularly in terms metallurgical coals).

[18] Certification Application at 30.

That is consistent with the reasoning of the Tribunal in the *In the Matter of Fortescue Metals Group Limited* [2010] A CompT 2 (at [1119]):

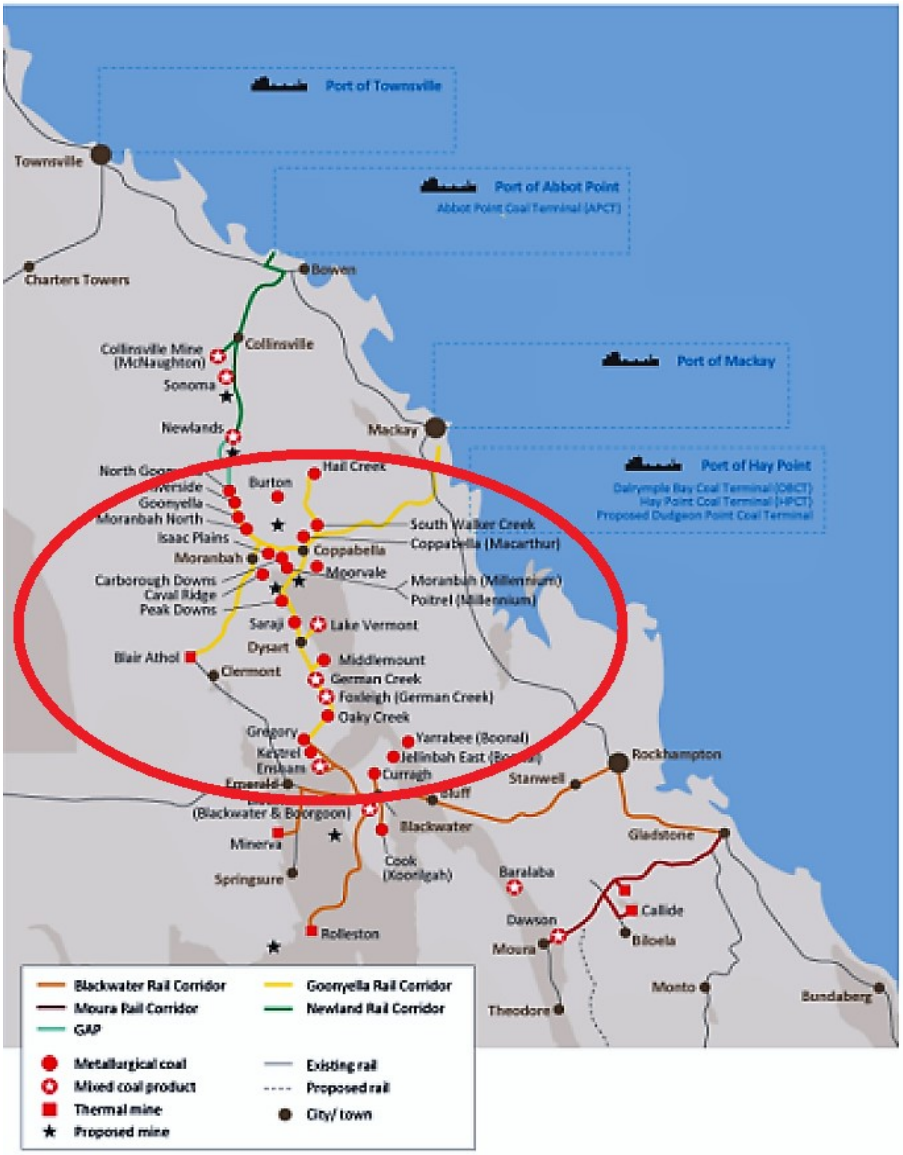
> *By the same token, many investors in tenements only participate in Australia. Further, as Mr Houston pointed out, differences in the scale and quality of resources, and different regulatory requirements and business environments, means that businesses most likely characterise their operations on a region-by-region basis, rather than a global basis. We believe that that market is most likely Pilbara wide, and not global for the reasons given by Mr Houston.*

(d) There is a Hay Point catchment market, not a broader Bowen Basin market

The considerations individual DBCT User Group members have advised they take into account when making acquisitions of coal tenements, make it clear that there is a Hay Point catchment coal tenements market, not a broader Queensland or Australian coal tenements market.

The 'Hay Point catchment' is not perfectly aligned with the Goonyella rail system – as tenements that are not connected to the rail system, but for which that would be the most efficient export part would be within the market, although the Goonyella rail system and proximate areas is a reasonable proxy for the current boundaries of the market.

Based on cost modelling the Castalia Report estimates the Hay Point catchment area as follows:



The DBCT User Group considers there is two key reasons that the geographic dimension of the market is appropriately defined as the Hay Point catchment:

(i) the price for tenements in the Hay Point catchment would not be expected to be correlated to the price for tenements in other parts of the Bowen Basin;

(ii) there are significant reasons why a tenement in the Hay Point catchment is not a close substitute for a tenement in other parts of the Bowen Basin

(e) Lack of pricing/value correlation between Hay Point catchment and other Bowen Basin tenements

The DBCT User Group, as previous and likely future, acquirers in the tenements market, generally value tenements to be account using financial modelling, principally reflecting a discounted cash flow model.

The critical parts of that cash flow model are:

(i) Assumptions going to the expected revenue – principally coal prices and US$/A$ exchange rates;

(ii) Assumptions going to mine operating costs; and

(iii) Assumptions going to infrastructure / logistics costs.

Assuming there is two hypothetical tenements with similar coal quality, resource size, environment and operating costs, but one is located in the Hay Point catchment and one is located elsewhere in the Bowen Basin, the DBCT User Group consider the two tenements will have a fundamentally different value to a potential purchaser.

That difference arises because the infrastructure costs are such a significant proportion of a mines costs (with proportions of up to 50% of total operating costs).

As noted above in section 5 of this submission and the PwC Report there are very substantial costs differences for the different terminals and rail systems (acknowledging that some of the cost differences would be lessened for mines in the more proximate system to each terminal).

Lower infrastructure costs (and more certain infrastructure costs so that less contingency for unquantifiable future increases is required) result in a tenement having a significantly higher value. Lower fixed costs also reduces the value reduction resulting from any delays to development and first coal from a project (due to lower take or pay charges in that period). That creates higher demand for tenements in the Hay Point catchment area.

The DBCT User Group acknowledges that this is difficult to demonstrate as the two hypothetical identical tenements in different systems do not exist – the value of a tenement to a purchaser is also partly based on issues that might be specific to them (such as use of an existing coal washing plant at another mine in their portfolio or being able to mine the tenement together with an adjoining deposit they already mine or hold a tenement for). However, the clear valuation methodology described consistently by DBCT User Group members is strong evidence of there being a distinct market for tenements for each terminal catchment.

(f) Substitution and differences to previous analysis

The DBCT User Group acknowledge the 'Pilbara wide' market definition adopted in *In the Matter of Fortescue Metals Group Limited*[19] and the following paragraph from Tribunal's judgement (at [1118]):

> *The geographic scope of the market must be determined. There is little detailed evidence on the subject. FMG submits that there is a tenements market around each line. Examining a map of tenements in the Pilbara, it is obvious that tenement purchasers (whether outright or partial purchasers) have not confined themselves to buying tenements around a specific railway line. This provides strong evidence that a monopoly seller of tenements around a specific line could not profitably apply a price increase because buyers would substitute to other tenements. Further a monopsony buyer of tenements around a specific line could not profitably decrease price because sellers would easily find a purchaser outside of this geographic area.*

However, that paragraph needs to be understood in light of the critical distinction between the Pilbara and the tenement catchment markets in the Bowen Basin. In the Pilbara (at least at the time of that decision) there was no perceived advantage to tenement buyers in being in close proximity to a Rio Tinto or BHP rail line (or any other potential line), as no third party access was perceived to be available. In other words any valuation modelling of the type described above would have needed to occur on a similar basis across the Pilbara, based on the costs of building new rail and port infrastructure to service the project.

[19] [2010] ACompT 2

Whereas in the Bowen Basin, it has always been contemplated that access to the Aurizon Network (previously Queensland Rail) rail line will be provided, and that a third party above rail service will be available. Consequently, DBCT User Group members have indicated that (as would be expected) they take into account:

(i) the infrastructure costs in the coal supply chain relevant to an exploration/development tenement they are considering acquiring;

(ii) other aspects of each relevant coal supply chain, such as:

(A) the certainty of being able to gain access;

(B) blending and co-shipping opportunities.

In particular, the DBCT User Group hold the view that there is a Hay Point catchment coal tenements market because:

(i) the certainty currently provided by the unique combination of a regulated below rail service and regulated coal handling service means that, particularly for a new entrant to the market, coal tenements elsewhere in the Bowen (or other) basins are not substitutes for tenements in the Hay Point catchment;

(ii) the cost, capacity and nature of the Goonyella supply chain means that for a potential investor in a coal tenement (either in a tender process from the government or through M&A activity), coal tenements elsewhere in the Bowen (or other) basins are not a substitute for tenements in the Goonyella system purely on a cost / value basis;

(iii) over time, the deposits which are being developed have a tendency to be further away from the ports (as the closest, lower infrastructure cost deposits have principally been developed), such that infrastructure costs would be anticipated to become more and more important to the valuation of tenements over time;

(iv) for existing producers, the synergies with other projects in the Hay Point catchment make a Hay Point catchment tenement much more attractive than in a different coal supply chain including through:

(A) the ability to utilise existing contracted infrastructure capacity (through transfer mechanisms that typically exist in above rail and below rail contracts and the DBCT User Agreements not being 'tied' to a particular load point);

(B) the ability to more easily transfer work force;

(C) the ability to potentially use existing infrastructure (coal washing plants, train load outs – see for example the Grosvenor project utilising the Moranbah North wash plant); and

(D) where a tenement is adjacent to an existing mine or tenement, the ability to develop a mine across both areas; and

(v) the different coal qualities found in the Goonyella part of the Bowen Basin (i.e. a very high proportion of metallurgical coal) also distinguish it from other parts of the Bowen Basin – in part because of the quality of the deposits and in part because of the co-shipping and other opportunities a Hay Point catchment tenement would be anticipated to provide.

The DBCT User Group acknowledges that that may be perceived as divergent from the suggestion in the NCC's final recommendation in relation to the Newcastle shipping channel declaration proceedings that:

parties seeking coal mining authorities may likewise be able to consider different locations (for instance, coal regions located in the Hunter Valley in NSW or coal mining regions in Queensland), thus expanding the field of substitutes.

However, the NCC made it clear that *'the Council does not have material before it to define those markets with great precision*' and in fact did not need to do so given that interpretation adopted in respect of criterion (a) – such that that the NCC raising the potential for a tenements market beyond the Hunter Valley in the absence of evidence or a need to resolve the issue - should not be given much weight. Tenements in the Goonyella / Hay Point catchment are not substitutable for tenements in the Hunter Valley or other parts of the Bowen Basin for the detailed reasons noted above.

Similarly, the DBCT User Group acknowledges that the Queensland government has previously considered there to be a 'Queensland coal tenements market' in the Certification Application. However, the boundaries of that market were not considered in detail by the Queensland government or the NCC or Commonwealth Minister in that certification process, and for the reasons set out above the DBCT User Group considers it clear than any material analysis demonstrates that there is a narrower Hay Point catchment tenements market.

6.3 Market Definition - DBCT Secondary Capacity Trading Market

(a) Overview – the DBCT Secondary Capacity Trading Market

The DBCT User Group considers that it is clear that there are two distinct markets in which capacity at DBCT (and ultimately the Service) can be acquired, namely:

(i) The Hay Point common user coal handling services market (as considered in section 5 of this submission) - in which:

  (A) DBCTM is the only existing supplier; and

  (B) access seekers for long term contracts are the acquirers (i.e. a coal producer seeking coal terminal access to support a new or expanded mine); and

(ii) The DBCT secondary capacity trading market in which;

  (A) The suppliers are existing access holders with contract capacity surplus to their needs and BPC (a related body corporate of DBCTM and the a 'Trading SCB' the subject of the ring-fencing restrictions in the current approved access undertaking for the Service); and

  (B) The acquirers are access seekers / holders seeking new or additional capacity – more typically being existing access holders seeking to manage short term production volatility.

The secondary capacity trading market operates in a number of ways, including through:

(i) The existing access holder continuing to hold the User Agreement but utilising their rights under the User Agreement to allow a third party to utilise that capacity;

(ii) An assignment or novation for part of the capacity held under an existing access holder's User Agreement for a short period (the DBCT User Group considers that where a permanent assignment of a user agreement occurs, as might occur with the sale of a mine, that is likely to be part of the primary market); and

(iii) BPC assignment or providing a brokerage service for users wishing to trade capacity at the terminal (with the supplying user not being disclosed) – with some

consideration paid by the supplying user for the service. It provides a competing alternative to coal producers trading directly with each other using one of the methods noted above.

However, irrespective of exactly how the secondary capacity trading occurs, in substance they are all the same type of transaction with the same economic effect, such that they clearly form part of the same market.

The secondary capacity trading market is by its very nature – clearly confined to DBCT – as the acquirers in that market are seeking additional / short term capacity to supplement their existing contracted positions (for mines which are located in, and have rail contracts for rail haulage and access in, the Goonyella system).

Based on information provided by individual DBCT User Group members to PwC, Castalia and Allens, it is evident that there has been 23 million tonnes of capacity traded in the DBCT secondary capacity trading market in the last approximately 3 years, with more currently under consideration – such that it is clear there is transactions occurring in this market.

(b) The DBCT Secondary Capacity Trading Market is distinct from the primary market

The DBCT User Group acknowledges that where DBCT capacity rights are acquired in the secondary capacity trading market, the physical activities at DBCT are the same as those which would be carried out under a user agreement directly obtained through the primary Hay Point common user coal handling services market.

However, when consideration is given to substitutability between those markets from the perspective of a coal producer the distinction between the primary and dependent markets become evident.

In particular:

(i) the pricing of such trading transactions in the DBCT secondary capacity trading market can vary from the charges applicable to reference tonnage (most relevant the Terminal Infrastructure Charge approved by the QCA), as if an existing access holder is not using capacity they will be subject to take or pay charges such that any payment from an acquirer of that surplus capacity improves their position even if they continue to bear the difference;

(ii) the primary Hay Point common user coal handling services market involves provision of services under a long term contract (typically for an initial at least 10 year term, with 5 year evergreen renewal rights) for the regulated tariff on take or pay terms, whereas the secondary capacity trading market typically involves short term transfers (sometimes as short as 4 months);

(iii) the driver of demand between the two markets is entirely different – demand in the secondary capacity trading market is principally driven by producers (who become buyers in this market) having insufficient capacity contracted in the primary market to meet production volatility, whereas demand in the primary market is principally driven by development of a new mining project (such that what the coal producer desires is long term infrastructure access and is willing to assume long term take or pay commitments to secure that); and

(iv) there are different participants in the primary and secondary markets.

As they have significantly different pricing, risk and term profiles and involve different participants – the DBCT secondary capacity trading market and the Hay Point common user coal handling services market are distinct and the rights traded in them are not close substitutes.

6.4 Market definition – central Queensland coal region haulage market

(a) Product/service dimension

The DBCT User Group consider it is clear that for haulage of bulk commodities such as coal over long distances (as occurs in the central Queensland coal region), trucking is not a price competitive substitute.

The DBCT User Group also consider that, given the social impacts which would be involved in trucking of such large volumes of material, it would not be permitted by regulators and governments in any case.

Haulage services provided for other freight are not considered substitutable for coal haulage as the rolling stock operating in the central Queensland coal region are designed for that specific haulage task and are different to those used for other freight (such as for intermodal traffic or even for bulk minerals haulage), for example 'kwik-drop' coal wagons and wagons utilised for haulage of containerised freight are not substitutable.

(b) Geographic dimension

The DBCT User Group acknowledge that coal haulage occurs in regions outside the central Queensland coal region, particularly in ARTC's Hunter Valley network and for limited volumes in Queensland Rail's West Moreton network.

However, there are substantial barriers to entry, such that the DBCT User Group considers there is a clearly separate market for coal rail haulage in central Queensland.

In particular:

(i) the central Queensland coal region below rail infrastructure is narrow gauge (in contrast to the standard gauge rail utilised in the Hunter Valley), such that rolling stock utilised in the Hunter Valley cannot be utilised in central Queensland;

(ii) the rolling stock which operates in the West Moreton system is different again to that used in the central Queensland coal region – with much smaller locomotives;

(iii) in order to supply rail haulage services in a region it is necessary to have maintenance facilities, provisioning facilities and rail yards in the region, such that a coal rail haulage supplier in a region cannot simply switch to providing services in a different coal haulage region.

(c) Consistency with previous ACCC consideration

That is entirely consistent with the ACCC's preliminary views on market definition in the 2016 Statement of Issues on the proposed acquisitions by Pacific National and Aurizon of the GRail business[20] which identified a market for the provision of coal haulage services in the Hunter Valley and noted:

> *Providers of coal haulage in other regions and haulage of other commodities may provide some level of competitive constraint for future coal haulage contracts in the Hunter Valley. However, the extent of this constraint is likely to be significantly weaker than that imposed by a haulage operator already active in the Hunter Valley using its own rolling stock. It would take time and significant investment for rail haulage operators based in other regions or hauling other commodities to start hauling coal on the Hunter Valley Rail Network. In particular, the infrastructure on the Hunter Valley Rail Network can support heavy, high-capacity trains that are not used elsewhere. Rolling*

[20] Statement of Issues, at [39]

stock used elsewhere or for other commodities may be capable of running on the Hunter Valley Rail Network, but it may require costly modifications and would generally be less cost-effective than the existing rolling stock used there.

(d) Limitations on substitution within the central Queensland coal region network

The DBCT User Group note that there are some limits on the substitutability of rail haulage services even between systems within the central Queensland coal region.

In particular, the Goonyella and Blackwater systems contain electric traction infrastructure, such that electric locomotives can use them. Whereas electric locomotives cannot be utilised to provide haulage in the Moura or Newland systems (or across the GAPE link which connects to the Goonyella and Newlands systems) which do not contain such infrastructure.

The DBCT User Group has not sought to definitely determine whether that provides sufficient limitations for there to be a separate Goonyella/Blackwater rail haulage market – as it considers that criterion (a) is clearly satisfied based on the wider central Queensland coal region market definition (and would therefore clearly be satisfied on any narrower geographic definition of the market).

6.5 Market definition – metallurgical coal

The DBCT User Group considers that there is a clear distinction between, and different markets for the supply of:

(i) metallurgical coal (used for steel manufacturing); and

(ii) thermal coal (used for power generation).

Those market definitions are consistent with the ACCC's consideration of coal markets in merger transactions.

Metallurgical and thermal coal are not demand-side substitutable. The obvious illustration of that is that steel mills cannot acquire thermal coal to produce steel.

They are also typically not supply side substitutable – most thermal coal mines cannot produce coking coal. That is very clearly demonstrated by the difference in price between the types of coal.

It is acknowledged that:

(i) there is very limited supply side substitution where some thermal coal mines are able, through more extensive coal washing, to produce a semi-soft coking coal product – but that is not common among thermal coal deposits; and

(ii) there is some substitution between different metallurgical coals – where some hard coking coal can be replaced by pulverised coal injection (***PCI***) coals or other lower quality metallurgical coal – but there are limitations on substitution of that nature as well as the coal blend requires a certain quantity of hard coking coal.

The metallurgical coal market is most relevant to the declaration review of the Service, given that the vast majority of coal exported from DBCT is metallurgical coal and metallurgical coal is much rarer in other parts of the Bowen Basin (and for that matter other parts of the world).

For the purposes of this submission, the DBCT User Group has not considered it necessary to consider the exact product or geographic definition of the relevant coal markets in further detail at this stage (particularly given that criterion (a) is clearly satisfied in respect of a number of other markets).

7 Criterion B - Foreseeable demand at least cost

7.1 Interpretation of criterion (b)

For ease of the QCA's evaluation, the DBCT User Group, has addressed the access criteria in the same order as the QCA Staff Issues Paper, such that the first criterion falling for consideration is criterion (b).

Criterion (b), as revised, requires consideration of whether the facility for the service could meet the total foreseeable demand in the market:

(a) over the period for which the service would be declared; and

(b) at the least cost compared to any 2 or more facilities.

The DBCT User Group considers an application of criterion (b) therefore logically involves:

(c) identification of the relevant facility (including potential future expansions of that facility);

(d) identifying the relevant market;

(e) identifying the period for which the service could be declared;

(f) projecting the total foreseeable demand in the relevant market over the relevant period;

(g) determining the costs of meeting the demand from the relevant facility; and

(h) determining the costs of meeting that demand from likely alternative combinations of facilities.

The Competition Policy Review Bill EM provides very clear guidance about how criterion (b) is intended to operate.

In particular the following paragraphs identify the consideration process involved:

(2) Total foreseeable market demand test (criterion (b))

12.22 Paragraph 44CA(1)(b) asks whether the facility that provides (or will provide) the service could meet the total foreseeable market demand at least cost over the declaration period. This is in comparison to a scenario where there are two or more facilities. The amendment to this paragraph is intended to refocus the test to a 'natural monopoly' test instead of a 'private profitability' test. *[Schedule 12, item 2, paragraph 44CA(1)(b)]*

12.23 The approach under the new paragraph is market-based, requiring the market in which the infrastructure service under application is supplied to be defined. This includes any substitute services that serve or will serve the market.

12.24 Total foreseeable market demand is considered over the declaration period the decision-maker is considering for declaration of the service. In assessing whether a facility could meet total foreseeable market demand at least cost, this calls for a consideration of whether what could be expected to be maximum demand could be supported by the facility.

12.25 The requirement to assess whether a facility could meet total foreseeable market demand 'over the period for which the service would be declared' does not limit the Council and the Minister to consideration of any period claimed in the application for declaration. The Council and the Minister are to recommend and decide, respectively, what is the appropriate period for declaration of the service.

12.26 Because the test uses the concept of foreseeability, it is not limited to looking at maximum demand based on current uses of the service. Other future uses may be relevant to the consideration, if they are foreseeable.

12.27 The time period for declaration will be relevant to considerations of foreseeability. If the declaration period being contemplated is only 10 years, it is not necessary to consider demand for the service far beyond that period. While it may be possible to foresee increased demand for the service in 30 years as a result of a long-term development, it is unlikely this demand would affect the natural monopoly status of the service within the declaration period. The Council and the Minister may need to consider multiple potential declaration periods in determining whether there is an appropriate declaration period over which criterion (b) would be met.

12.28 Whether total foreseeable market demand can be met at least cost over the declaration period is a question of judgement informed by facts. Consideration would be given to a comparison of the costs from the facility in question meeting total foreseeable market demand with the costs that would be incurred in the least costly alternative scenario.

12.29 Broadly, the alternative scenarios to be considered will depend on whether there is a substitute service provided by another facility. Different alternative scenarios could be considered based on whether there are existing substitutable services or not, for example:

- if there is a substitute service provided by another facility there are, broadly, two potential alternative scenarios: the two substitute facilities share total foreseeable market demand; or a third facility is built to provide part of total foreseeable market demand; or

- if there is not a substitute service provided by another facility there may only be one potential alternative scenario, that is the duplication (or partial duplication) of the facility.

Source: Competition Policy Review Bill EM

The DBCT User Group considers it is very clear that when such a thought process is followed criterion (b) is satisfied. That is demonstrated beyond any doubt by the PwC Report.

7.2 Relevance of previous NCC and Tribunal decisions

The DBCT User Group agree with the statement in the Staff Issues Paper that there is *'substantial congruence in criterion (b) in both Part 5 of the QCA and Part IIIA of the CCA, with the articulated approach of the NCC and ACT to criterion (b) in its previous form'* and that *'previous NCC recommendations and Tribunal decisions on criterion (b) in the context of Part IIIA are relevant and should be considered as part of evaluation where criterion (b) in the context of Part 5 of the QCA Act is satisfied'*.

Those previous decisions interpreted the previous criterion (b) in language such as the following from *Duke Eastern Gas Pipeline Pty Ltd*[21]:

[21] [2001] ACompT 2 at [137]

> *We agree with the submissions of NCC that the "test is whether for a likely range of reasonably foreseeable demand for the services provided by means of the pipeline, it would be more efficient in terms of costs and benefits to the community as a whole, for one pipeline to provide those services rather than more than one.*

Where the legislature is conscious of those previous decisions and then chooses to enshrine that language in the new statutory threshold for criterion (b), it must be assumed that the legislature wished to have the law reflect those previous decisions.

The NCC described this criterion as covering 'infrastructure exhibiting natural monopoly characteristics'.

Relevantly to the review of the declaration of the Service, this previous (and now reinstated) test for criterion (b) was applied in the certification process regarding the DBCT Access Regime, resulting in findings that:

> *The Regime applies to a port, an asset that exhibits natural monopoly characteristics and is unlikely to be economically feasible to duplicate* (Minister's Statement of Reasons at 4)
>
> *Facilities such as the DBCT are likely to exhibit natural monopoly characteristics and are unlikely to be economically feasible to duplicate.* (NCC Final Recommendation at [5.10])

7.3 Relevant facility

Clearly the *'facility for the Service'* is DBCT.

However, the test is not based on simply the facility as it is today, but the facility as it is reasonably possible to expand, as made clear in section 76(3) QCA Act.

As discussed further below, on all credible projections of foreseeable demand the DBCT User Group considers it is clear that foreseeable demand can actually be met by the existing terminal, which the DBCT User Group currently understands to have approximately 4.2 mtpa of uncontracted capacity.

However, to the extent that the QCA considers that foreseeable demand will reach levels above the 85 mtpa capacity of DBCT, it is important to note that:

(a) DBCTM's own 2016 Master Plan identifies a pathway of expansions up to 136 mtpa capacity;

(b) The 2016 Master Plan discusses 3 future expansion options in material detail, including providing the following summary of the expansion pathway (page 48).

Stage		Description	Capacity (Mtpa)
Zone 4		Completion of Row 8, additional elevated stacker bund and additional Stacker (Bund 7/ST5), replacement of existing Reclaimer RL2 with new Reclaimer RL4 with extended reach into Row 8.	89
8X	Phase 1	Stockyard Augmentation Project (including vertical concrete walls on existing bunds 1 and 3), Stacker ST2 upgrade, Stacker ST1 upgrade and an upgrade of Conveyors R1 & R2	94
	Phase 2	Rail Receival Pit 4, Inloading Buffer Storage, Upgrade to Inloading 2 and Outloading 2	102
9X (Implemented over 3 phases)		Additional Stockyard at Louisa Ck, Upgrades to Inloading 1, additional Outloading System 4 and up to 2 berths to the north, including significant land reclamation to accommodate dredge spoil	Up to 136

Table 5: Proposed expansion pathway

Source: DBCT Management, Dalrymple Bay Coal Terminal Master Plan

As such, the modelling undertaking in the PwC Report uses those identified incremental expansion projects and costs estimates previously provided by DBCTM itself as a starting point for measuring the cost of that expanded capacity at DBCTM.

As criterion (b) is clearly satisfied even taking that conservative approach the DBCT User Group has not sought to further analyse the efficiency of the cost estimates previously provided, beyond escalating them for inflation (so they can be compared on a like for like basis with other cost estimates).

However, the DBCT User Group notes that if the QCA was to find that criterion (b) was not satisfied for any period, then it would need to analyse whether the DBCTM cost estimates for these expansion projects were actually reflective of efficient costs. The DBCT User Group considers it is highly likely the cost estimates are materially higher than efficient costs due to:

(a) the level of contingency being provided for;

(b) the estimates having been made at a time of higher construction / development costs;

(c) DBCTM having incentives to over-estimate costs of future expansions.

7.4 Relevant market in which foreseeable demand should be measured

As discussed in section 5 of this submission above, the appropriate market in which to assess the demand is the Hay Point common user coal handling services market.

7.5 Relevant period over which foreseeable demand should be measured

As noted above criterion (b) refers to *'the period for which the service would be declared'*.

In the context of the current declaration review, the QCA Act does not provide any specified period for which the Service would be declared.

As such, the period for which a service should be declared is a decision for the QCA to recommend, and ultimately for the Minister to make.

Unlike in an application for declaration of a currently undeclared service there is not even a period of declaration proposed by an application.

Accordingly criterion (b) will be satisfied if there is any period for which the test of foreseeable demand at least cost will be met.

The Competition Policy Review Bill EM makes it clear that:

> *That Council and the Minister may need to consider multiple potential declaration periods in determining whether there is an appropriate declaration period over which criterion (b) would be met.*

That is, if the QCA ultimately determines that there is a period for which the QCA is not satisfied that DBCT can meet the foreseeable market demand at least cost, then it is required to consider whether there are any other periods for which it would be so satisfied. If the QCA finds any period for which it is so satisfied then criterion (b) is satisfied.

That being said, the DBCT User Group considers that it is very clear from the modelling shown in the PwC Report that there will be multiple periods over which criterion (b) will be satisfied.

The DBCT User Group submits that where the QCA is satisfied of criterion (b) (and each of the other access criteria) over multiple periods, It would clearly be appropriate to extend the declaration for the longest period for which the QCA could be satisfied that criterion (b) (and each of the other access criteria were satisfied).

The DBCT User Group considers that is consistent with two of the main features that the QCA has correctly identified in section 1.2 of the DBCT User Group as relevant to determining the appropriate period of declaration:

- *The importance of long-term certainty to access seekers who may engage in significant investments as part of gaining access to a declared facility*
- *The duration of time for which users may seek access to the facility (for example considering average mines lives)*

Coal mine developers and producers make investments in mines which typically have long mine lives between approximately 10 to 30 years. The DBCT User Group notes that DBCTM proposed a weighted average mine life of 25 years in the context of the 2015 draft access undertaking process, and the QCA's consultant, RMI, considered that understated mine life given that it was based solely on reserves (disregarding measured and indicated resources).[22]

Below rail investments have useful lives of closer to 30 years in nature. Above rail investments in rolling stock have useful lives of approximately 20-25 years in nature. DBCT itself has a useful life that continues on for decades to come.

A longer declaration period is absolutely consistent with the clear public interest in the provision of regulatory certainty for the purposes of facilitating efficient investment in such dependent markets. In that regard the DBCT User Group notes the NCC's comments in its Final Recommendation on certification of the DBCT Access Regime that:

> *Brookfield [DBCTM's ultimate owner] submits that expansion of terminal infrastructure requires substantial and long term capital commitment and that facilities are typically built to last 50 years or longer. Brookfield argues that a certification period of 'at least ten years, preferably longer' is appropriate 'as long term regulatory certainty is necessary to instil confidence that*

[22] Resource Management International (RMI), Review of the Economic Life of DBCT Assets Final Report, December 2015

investments can be made within settings that remain predictable for the longer term' (Brookfield submission, [17]).

The DBCT User Group notes the references in the Staff Issues Paper to the foreseeable timing of potential changes in the market environment and the need for periodic reviews. While accepting that those are relevant factors, the DBCT User Group considers that they should not be given significant weight given that the QCA Act will continue to provide DBCTM the right to seek a revocation if it genuinely believes that the access criterion are no longer satisfied at some point prior to the renewed declaration expiring. As such, there is actually no possible harm in a longer declaration period in the event that one of those factors would change the position in relation to whether the access criterion would be satisfied.

In any case, there is limited prospect of such dramatic changes to the market environment that a review will be needed prior to the 15 year declaration period proposed.

The DBCT User Group also considers it relevant to have regard to the declaration periods adopted under the national access regime in Part IIIA CCA, as discussed in further detail in the PwC Report.

In particular:

(a) in the most recent declaration decision under the national access regime, the channel services at the Port of Newcastle were declared for a period of 15 years – which is particularly relevant given the nearly identical nature of the coal related dependent markets for that infrastructure services as for the Service here; and

(b) the Goldsworthy railway was declared for a period of 20 years – where the impacts on competition were in similar tenements and rail haulage dependent markets.

The DBCT User Group consider those longer time periods demonstrate that in the mining industry, where the primary and dependent markets are typically characterised by long life assets and investments and the need for certainty over the life of those assets and investments is of critical importance, longer declaration periods are appropriate than might be the case for some other infrastructure services.

Accordingly, the DBCT User Group considers that at least a 15 year declaration period would be an appropriate starting point for consideration of criterion (b).

As is evidenced from the below analysis and the modelling and analysis provided in the PwC Report it is clear that criterion (b) would also be satisfied over numerous other periods – but this submission does not consider other time periods in detail given how clear it is that all criteria (including criterion (b) can be satisfied over that period).

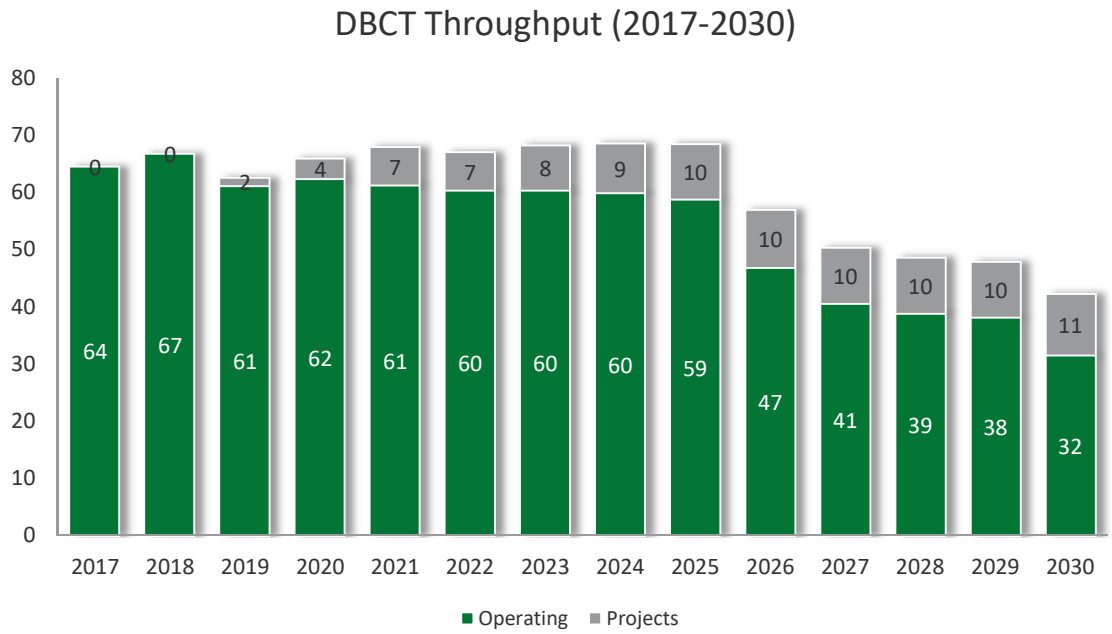
7.6 Foreseeable demand

Following the analysis above, the DBCT User Group considers it is appropriate to seek to estimate foreseeable demand for common user coal handling services at the Port of Hay Point over the next 15 years.

The DBCT User Group acknowledges that there are of course multiple possible methodologies for forecasting demand, such that numerous methodologies have been considered with a view to identifying the most credible methodologies.

(a) WoodMackenzie projections

WoodMackenzie provides the following projection of demand at DBCT:



Source: WoodMackenzie, February 2018

The DBCT User Group considers this is a credible forecast that is a key data point in seeking to determine foreseeable demand.

WoodMackenzie is a reputable industry consultant who provides an independent view of demand to coal producers (such as members of the DBCT User Group), coal customers and service providers to the coal sector (noting that DBCTM has referred to WoodMackenzie data in previous submissions to the QCA).

The most notable thing about that projection of foreseeable demand is that there is no years during which the projected demand reaches above 85 mtpa, strongly suggesting that the existing facility can satisfy existing demand.

That is particularly the case, given that:

(i) the existence of the DBCT secondary capacity trading market allows producers to acquire surplus capacity from other users which are not utilising that capacity (the latter of which are incentivised to trade the capacity to defray take or pay liability); and

(ii) the DBCT access undertaking prevents DBCTM from contracting above system capacity,

such that a substantial buffer between throughput needs and contracted capacity should not be required to accommodate production variations or system issues.

(b) Upper bound demand estimate

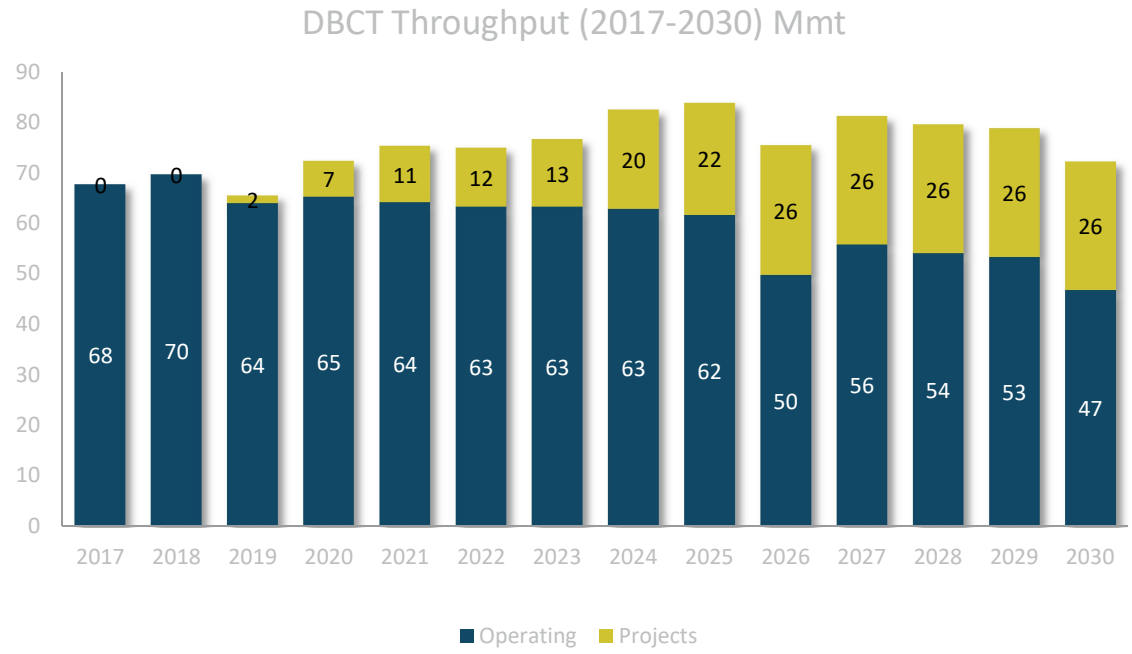
So as to demonstrate that criterion (b) is satisfied based on any credible project of foreseeable demand, the DBCT User Group has also considered foreseeable demand projections based on an aggressive or upper bound demand outlook.

The graph below reflects throughput as estimated by WoodMackenzie, subject to the following adjustments:

(i) advancement of current known projects based on latest estimates from DBCT User Group members (which brings forward volume from the Olive Downs and

Winchester South projects to the earlier date being targeted by the relevant producers); and

(ii) APCT capacity from Hay Point catchment users (such as Lake Vermont and Middlemount) diverting to DBCT upon contract expiry dates.



Source: WoodMackenzie, February 2018 (with User Group adjustments as described).

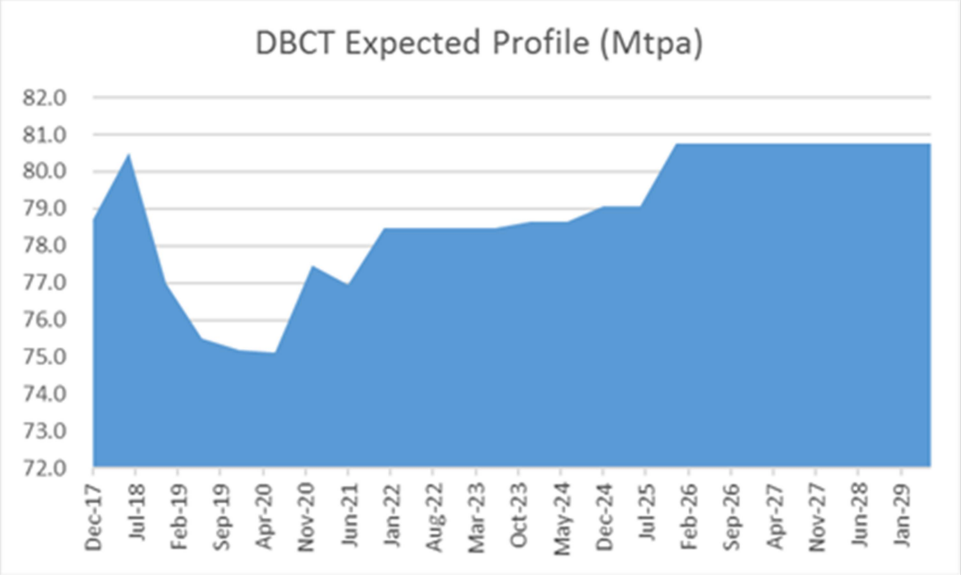
The most notable thing about that projection of foreseeable demand is that, even with those aggressive assumptions applied to the demand profile, there is still no years where projected demand reaches above 85 mtpa.

The DBCT User Group acknowledges that there are some years were projected demand is close to 85 mtpa (2024, 83mtpa and 2025, 84 mtpa). However, given that level of demand is not long term or consistent (and is not actually above the capacity of the terminal) there would be real questions about whether the terminal would be expanded in response to that demand (noting that even if it was, the PwC demonstrates clearly that DBCT would remain the least cost option).

(c) DBCTM's own projections

DBCTM itself has provided previous projections of demand, outside the context of this declaration review.

For example, the following projection of demand was made available to a member of the DBCT User Group in February 2018.



Source: DBCT Management email to DBCT User Group member, February 2018

That demand projection is notable for two reasons:

(i) firstly it shows that over the next 7 or so years until July 2025, DBCTM has a clear view that demand is well below the existing capacity of DBCT; and

(ii) even in the later years, DBCTM expectations that the demand remains below the existing capacity of DBCT.

As noted below, the DBCT User Group considers this projection may overstate long term demand, but as it considers that criterion (b) will clearly be satisfied on the basis of DBCTM's own projections, it is willing to use them for the purposes of demonstrating that to be the case.

(d) DBCT User Group Projections

The DBCT User Group has sought to verify the DBCTM projection by having all members of the DBCT User Group (including those who are access seekers rather than current access holders) provide their own individual forecast demand to PwC.

PwC has confirmed that the aggregation of those customers projections are at or below DBCTM's own projections.

It is acknowledged that in later years it is possible that the DBCT User Group demand projections understate demand due to the DBCT User Group not having full visibility of all potential new projects which may create demand. However, this exercise has confirmed that the WoodMackenzie and DBCTM projections are, if anything, optimistic assessments of demand.

(e) Projections in previous QCA processes

The DBCT User Group notes that the QCA itself has made projections of Goonyella demand in its most recent draft decision on Aurizon Network's draft access undertaking (UT5).

These projections have two limitations for the purposes of providing foreseeable demand:

(i) they are only for 4 years (2017/18 – 2020/21); and

(ii) they are for the Goonyella system – such that the volumes include tonnage that is:

(A) exported through HPCT (and therefore definitely not part of the demand in the Hay Point common user coal handling services market); or

(B) cross system traffics with a Goonyella system origin but a different system destination (i.e. the APCT contracted users) (which are not part of the demand over the UT5 volume forecast period, but may become part of the foreseeable demand in the Hay Point common user coal handling services market over the declaration period proposed).

However, they do provide some short term corroboration for other projections.

The QCA's UT5 Draft Decision (on page 177) provides the following volume forecast for the Goonyella system:

2017/18	2018/19	2019/20	2020/21
124.75	128.45	130.25	130.25

The break-down of the Goonyella system forecasts between DBCT volumes, HPCT volumes and cross-system traffics that have a Goonyella origin but a non-Hay Point destination that was assumed by the QCA is not known by the DBCT User Group.

However, assuming HPCT is close to fully utilised at its current throughput level of ~49 mtpa and that 10 mtpa is cross system traffic over those years (compared to the 13 mtpa of APCT capacity thought to be contracted by Goonyella based mines), that results in those projections forecasting DBCT demand as:

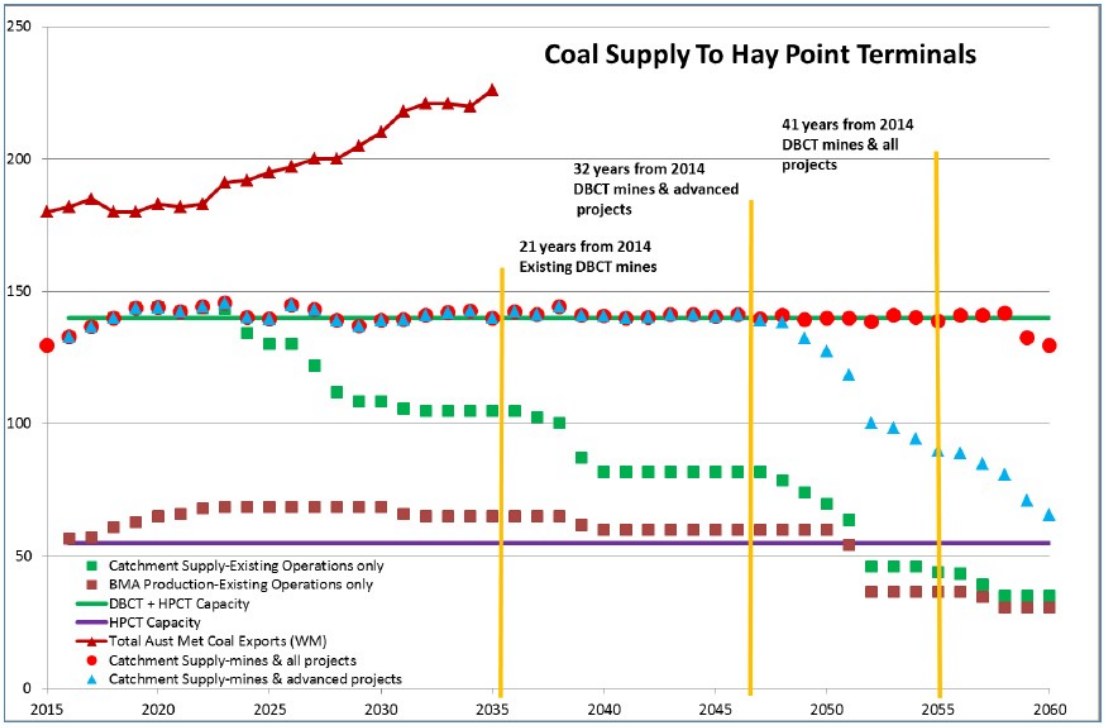
2017/18	2018/19	2019/20	2020/21
65.75	69.45	71.25	71.25

That indicates a relatively stable profile of DBCT demand and is relatively consistent with the WoodMackenzie and DBCTM projections of demand referred to earlier.

The DBCT User Group also notes the RMI Report[23] (provided to the QCA in the context of its consideration of DBCTM's 2017 Access Undertaking), which suggested there is adequate capacity within existing mine, rail and port infrastructure to accommodate the railing forecast to FY2021 (see page 21), and provided the following projection of future demand:

[23] Resource Management International, DBCT 2015 DAU Review of the Economic Life of DBCT Assets Final Report, December 2015

Figure 5: Revised Coal Supply to Hay Point Terminals



Source: RMI Report

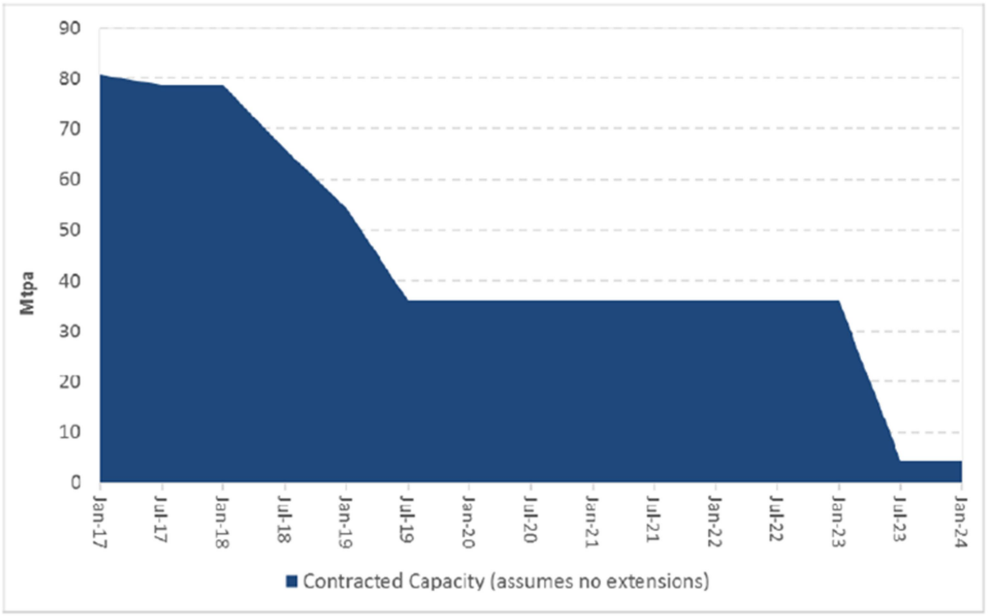
Again, that projection is notable for the demand being highly correlated to DBCT's existing capacity for a long period well past the point of the proposed declaration period.

(f) DBCT Contracted Capacity profile

The DBCT User Group has given consideration to whether the existing contracted capacity profile of existing DBCT Users is relevant to assessing foreseeable demand – but ultimately discounted it due to not providing an accurate forecast of future demand beyond a few years into the future.

While User Agreements typically have an initial term of 10 years, clause 20 of the Standard DBCT User Agreement provides DBCT Users with an 'evergreen' right to renew their access rights for a further 5 years that is (subject to provisions regarding acceleration of the option in certain circumstances) by notice within 12 months of the expiry of the then current term of their User Agreement.

Consequently many of the existing User Agreements expire within the next 5 years as demonstrated by the contracted capacity profile as at June 2017, DBCTM disclosed in the last Throughput and Capacity Forum.



Source: DBCTM, Throughput and Capacity Forum, June 2017

However, as previously explained in the DBCT User Group's extensive submissions on this topic in the 2017 Access Undertaking process, these expansion options are nearly always exercised. That is principally the case as:

(i) as no other coal export terminal competes in the same market with the Service, every user has an extremely strong incentive to continue to renew existing User Agreements for (at an absolute minimum) the current life of their mine;

(ii) even where mines of a user have temporarily closed or are anticipated to close, users have continued to pay access charges for the Terminal, with a view to being able to sell the mine with port access in place (as occurred with Isaac Plains);

(iii) for major mining companies with multiple mines, renewal access to DBCT facilitates future development of their portfolio of mines;

(iv) given the value of access to DBCT, access holders having the potential to assign or trade the capacity to existing or future users when there are no longer useful to the existing access holder.

On those and other grounds It was accepted in the QCA's Final Decision in that process that *'DBCT users will, in general, have an incentive to exercise their renewal rights at DBCT'* (at 15).

As a result, this significant drop in contracted capacity has been the profile at DBCT for a number of years with the 'cliff face' always pushing one to five years out.

Consequently, the DBCT User Group acknowledges that the contracted capacity profile substantially understates foreseeable demand – with the possible exception of providing a very short term projection of demand over a few years.

(g) The DBCT access queue

The DBCT queue has been considered, but also ultimately discounted – due to substantially overstating demand and not providing an accurate forecast of future demand at any particular future point in time.

The queue does not provide a genuine reflection of demand as:

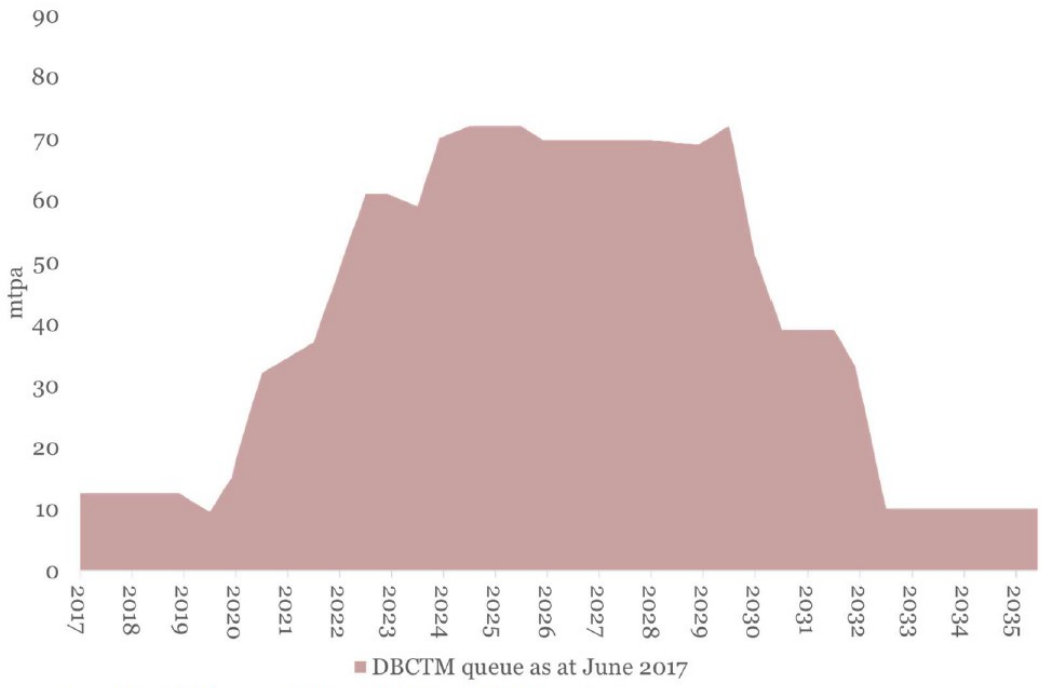
(i) there is no cost to an access seeker of making an access application to be in the queue (such that it is a completely free option for a producer or potential producer); and

(ii) there are numerous examples of access seekers being in the queue and not ultimately continuing to be the point of agreeing a user agreement (with the access undertaking providing provisions to remove access seekers from the queue).

This is very aptly demonstrated by the fact that there is thought to be approximately 80 mtpa of access applications in the queue – yet there remains surplus uncontracted capacity at the terminal.

For example a queue profile that was provided by DBCTM to an individual DBCT User Group member in June 2017 was a follows:

Figure 4: DBCT access queue



Source: Unpublished data provided by to PwC the DBCT User Group

Yet DBCTM has in the last month indicated to a DBCT User Group member that given that most of the entities in the queue did not indicate they wanted to negotiate for the recent tranche of capacity that was offered to the queue, it is likely the queue will be reduced to closer to 10 mtpa in the near future.

Similarly a review of past published data in the queue shows that access applications existed for substantial capacity in excess of the existing terminal capacity currently – yet again there remains surplus uncontracted capacity at the terminal. See for example the below 2016 projection contained in the DBCTM 2016 Master Plan showing nearly 50 million tonnes per annum of capacity above the existing 85 mpta capacity. That has of course never resulted in contracted capacity which would require an expansion above DBCT's existing capacity.

Whether that has not resulted in actual demand eventuating because the access applications were not progressed, were delayed, did result in contracts but that was offset by existing users not renewing or reducing capacity or otherwise – the point is clear that the queue ridiculously

overstates demand and is of no assistance in determining foreseeable demand for the purposes of criterion (b).

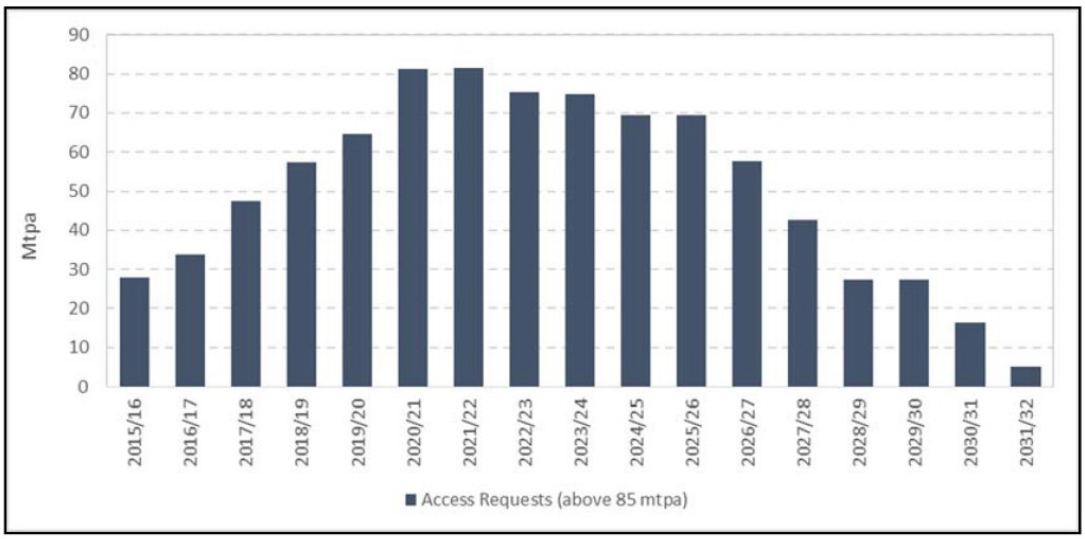


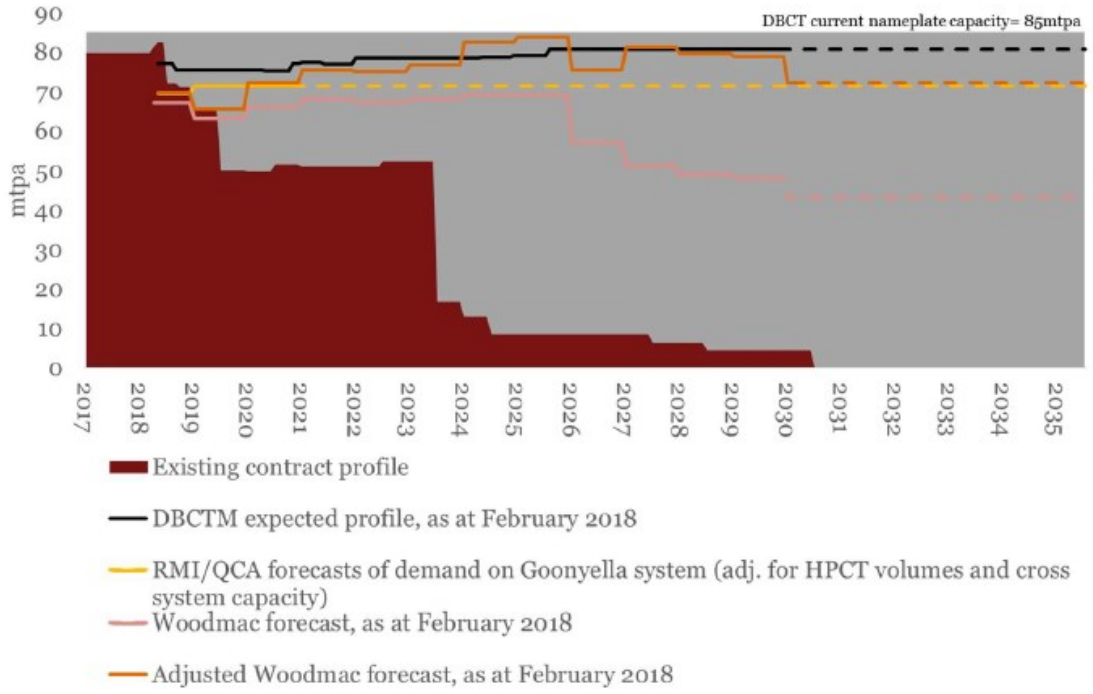
Figure 26 : Aggregated access requests above 85 Mtpa Terminal Capacity (DBCT Management, 2016)

Source: 2016 Master Plan, page 44.

(h) Conclusions on foreseeable demand

The PwC Report clearly demonstrates the correlation of the various demand projections that are considered credible as shown in the diagram below:

Figure 3: Forecasts of future demand at DBCT



Source: Unpublished data provided to PwC by the DBCT User Group, February Woodmac projections, QCA (2017) *Aurizon Network's 2017 draft access undertaking*, available at: http://www.qca.org.au/getattachment/7183cb8a-1be0-4de7-a451-a299e0f97896/QCA-Draft-decision.aspx
*Note: we have adjusted the RMI/QCA forecast of demand on the Goonyella system for 49 mtpa of capacity for the Hay Point Coal Terminal and 10 mtpa of cross system capacity.

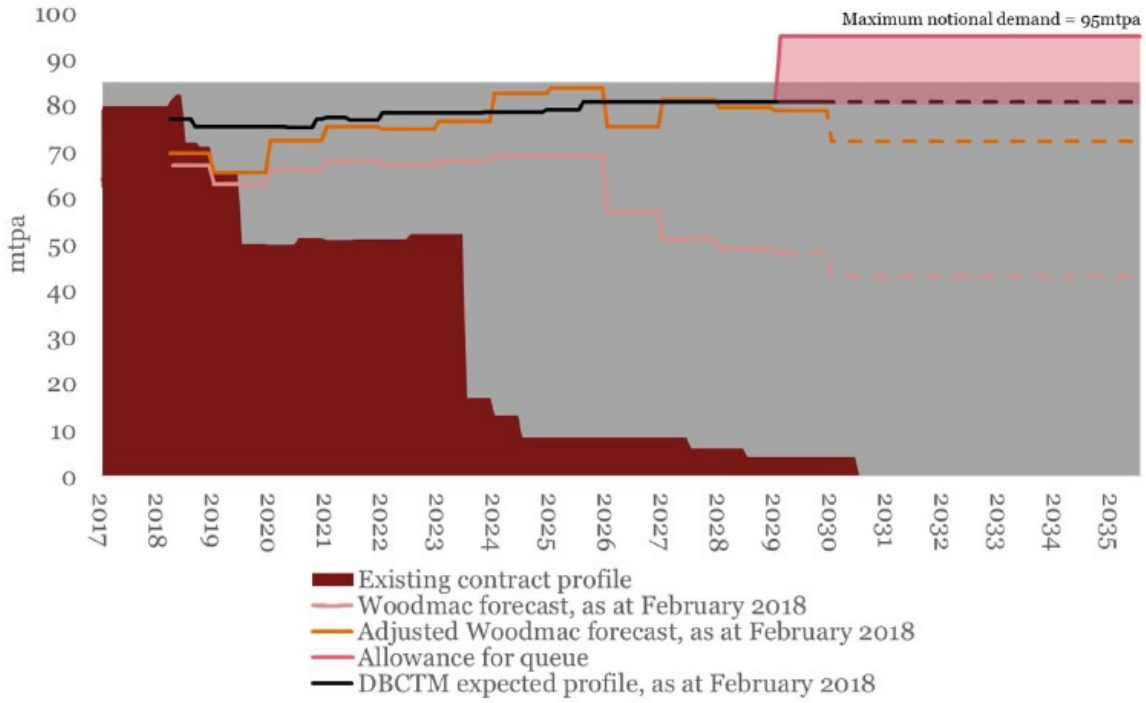
The DBCT User Group therefore considers that peak foreseeable demand is actually below the existing capacity of DBCT.

To the extent that capacity can be met from the existing facility (DBCT) it will be absolutely clear that it can be provided at least cost by that facility, rather than incurring all of the incremental costs involved in the demand being met by other terminals.

Having considered the various credible demand projections, the PwC Report takes the very conservative approach of seeking to model least cost against even higher demand projections (utilising a theoretical increased in demand to a 95 mtpa extreme upper band demand projection starting in 2029).

For the avoidance of doubt, the DBCT User Group do not consider this reflects foreseeable demand, but have provided it for completeness as the PwC Report demonstrates that even based on this extreme upper bound demand forecast, criterion (b) would be satisfied.

Figure 5: Notional future demand at DBCT over the assumed declaration term



Source: Unpublished data provided by to PwC the DBCT User Group, 2018 February Woodmac forecast as prepared for Peabody and included in presentation named *DBCT Scenario, 24 May 2018* and adjusted by the DBCT User Group, unpublished.

7.7 The cost of meeting foreseeable demand at DBCT

(a) Costs where surplus capacity exists

DBCT currently has existing surplus capacity such that all present demand can be met by the existing terminal.

Where surplus capacity exists, there is no incremental cost to contract the additional capacity beyond a minor amount of variable operations and maintenance cost.

All of the credible projections of demand noted above, are within DBCT's existing capacity – with the exception of a few years of the WoodMac projection.

The DBCT User Group agrees with the view in the Staff Issues Paper that:

Existing tariffs (in particular those approved through a regulatory process) may be an appropriate indicator of the existing cost of service provision

That is clearly the case for the exiting terminal when a Final Decision by the QCA was made as recently as November 2016. Consequently the existing charges for the Service are utilised in the PwC Report for modelling the cost of meeting foreseeable demand using the existing facility.

(b) Administration and compliance costs

The DBCT User Group agrees with the assessment in the Staff Issues Paper (and the NCC in its Guide in relation to Part IIIA)[24] that administration and compliance costs should be dealt with as part of the assessment of criterion (d) as noted in paragraph [12.33] of the Competition Policy Review Bill EM, such that they are not relevant to criterion (b).

That is not altered by the wording of section 76(4) QCA Act, referring to *'all costs associated with having multiple users of the facility for the service, including costs that would be incurred if the service were declared'* as that wording is intended to capture coordination and opportunity costs arising from having multiple users.

However, in the scheme of the costs involved in providing the Service, the administrative costs to DBCTM of regulation are minor such that it does not consider the outcome under criterion (b) will turn on that interpretation issue.

The administration and compliance costs arising from declaration are compensated for through corporate overhead allowances in the approved reference tariffs, such that they are ultimately not a cost to DBCTM – but a cost to Users.

The QCA's draft decision on the 2015 Draft Access Undertaking (which formed the basis for the Final Decision on this issue) provided an annual allowance of $7.23 million (in 2016-17 dollars).

Users consider that those costs are actually less than the administration and compliance costs which would be incurred where instead of being regulated, the terms of access were the subject solely of contractual mechanisms. Where that is the case, for example, in respect of APCT that has resulted in parties spending significant amounts on lawyers and economists to negotiate outcomes of the 5 year period pricing reviews that occur and, where agreement cannot be reached, in preparing for arbitrations.

The DBCT User Group's modelling in the PwC Report is ultra-conservative by not 'backing out' from the existing tariffs the allowance included in the QCA cost-build up in setting the Terminal Infrastructure Charge for regulatory and compliance costs, but it should technically be backed out. Given that criterion (b) is so clearly satisfied using the current modelling, the DBCT User Group has not taken the step of seeking to extract those costs.

(c) Coordination and opportunity costs

For completeness, the DBCT User Group acknowledges that costs for the purposes of criterion (b) includes *'all costs associated with having multiple users of the facility for the service, including costs that would be incurred if the service were declared'* (section 76(4) QCA Act).

However, at all times since its initial development DBCT has been a multi-user facility. It will continue to be a multi-user facility with and without the declaration – as no single user has anywhere near enough production to make the terminal viable as a single user terminal.

Consequently, while the DBCT User Group acknowledges that coordination and opportunity costs arising from the infrastructure becoming multi-user may be relevant costs in other circumstances

[24] NCC, *Declaration of Services: A guide to declaration under Part IIIA of the Competition and Consumer Act 2010 (Cth)*, April 2018, at paragraph 4.12-4.14.

(where a facility is at the time of consideration a single user facility), they are not particularly relevant to this assessment – as they will be incurred irrespective of whether the Service remains declared.

If anything, the DBCT User Group consider it is possible that such costs may increase as some of the structures that come with regulation (such as the Terminal Regulations), which provide consistent rules to minimise coordination and opportunity costs, may not continue following declaration ceasing.

7.8 Costs of incremental expansions at DBCT

As noted in section 7.3 of this submission above, the DBCT Master Plan identifies 3 incremental expansion projects for DBCT (Zone 4, 8x and 9x).

As such, the modelling undertaking in the PwC Report uses those identified incremental expansion projects and costs estimates previously provided by DBCTM itself as a starting point for measuring the cost of that expanded capacity at DBCTM.

As criterion (b) is clearly satisfied even taking that conservative approach the DBCT User Group has not sought to further analyse the efficiency of the cost estimates previously provided, beyond escalating them for inflation (so they can be compared on a like for like basis with other cost estimates).

The PwC modelling demonstrates that

(a) for the projected 'base case foreseeable demand' – there is no incremental expansion required;

(b) for demand up to 89.1 mtpa – DBCT with a Zone 4 development is the way to meet demand at least cost with no other options even close to being comparable; and

(c) for demand up to the 'extreme upper bound demand forecast' of 95 mtpa conservatively used in the PwC Report – DBCT with a Zone 4 and 8x expansion is clearly the way to meet foreseeable demand at least cost.

7.9 The cost of meeting foreseeable demand at 2 or more facilities

(a) Costs of a new or expanded terminal

The DBCT User Group and PwC have sought to model the costs of meeting foreseeable demand at two or more facilities by considering the alternative ways that demand could be met outside of DBCT.

The costs of development a greenfield facility such as Dudgeon Point would be very significant.

In particular they would include the very significant costs involved in:

(i) engineering and design works;

(ii) land acquisitions for each of the terminal, related infrastructure, rail connections and other land for lay down areas and support industries;

(iii) construction of:

(A) rail loops and train unloading facilities

(B) rail connection to the Goonyella system;

(C) offshore wharf facilities, shipping berths and jetty structures;

(D) expanded tug facilities;

(E) a new barge facility;

(F) supporting infrastructure costs (such as for rail connections, conveyors, stockyards); and

(G) other site infrastructure, such as administration buildings, warehouses, workshops, roads, phone, electricity, water supply and storage and sewage treatment.

(iv) maintenance;

(v) dredging to create the ship berth pockets and extension of the Hay Point departure path to service the new berths (and, following the *Sustainable Ports Development Act 2015* (Qld), substantially more expensive onshore disposal of the estimates 11-15 million cubic metres of dredged materials); and

(vi) major plant and equipment capital costs (for stacker-reclaimers); and

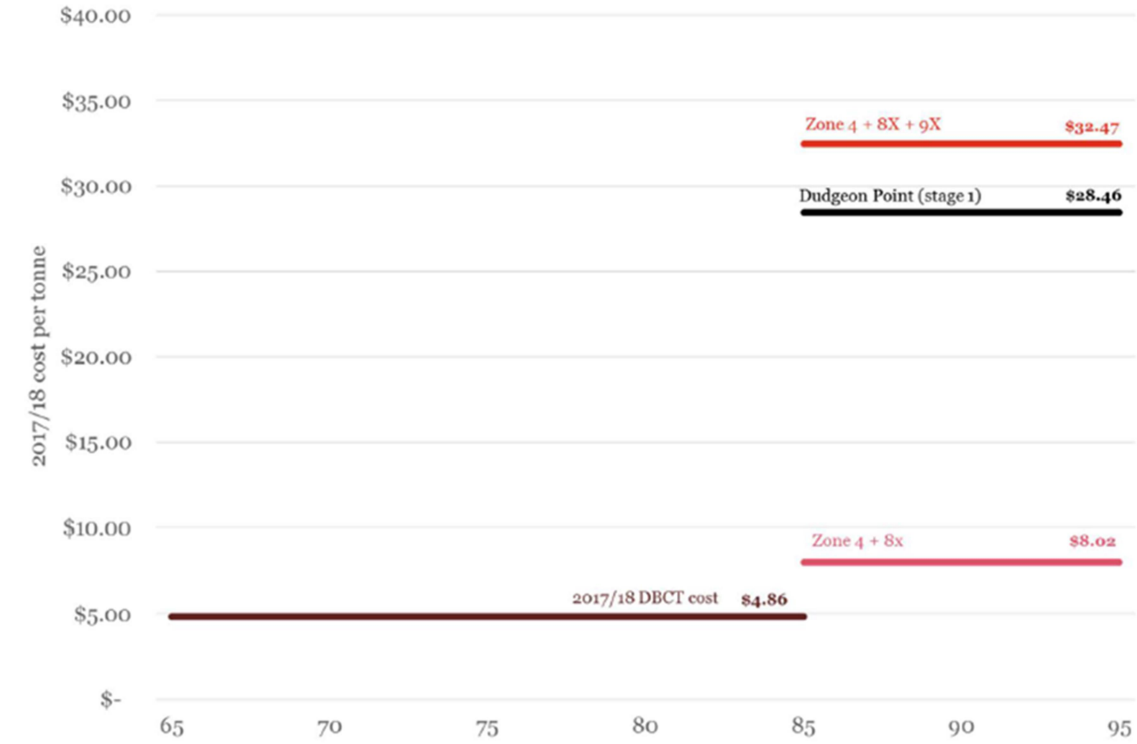
That list of costs in consistent with the type of costs listed in the Competition Policy Review Bill EM (see Examples 12.1 and 12.2), and the scope of the DPCT project as described in the DPCT Initial Advice Statement.

For ease of comparison, no below rail or above rail costs have been added to the estimate as those costs might be argued to be comparable as between DBCT and DPCT. However, that is an ultra-conservative assumption given that DPCT would involve investment in at least further below rail infrastructure at an additional cost that is likely to be sought to be charged to DPCT users by Aurizon Network in the same way GAPE and WIRP fees are).

Studies were done on the costs of developing a standalone DPCT, such that (as described in the PwC Report), those previous study estimates have been escalated for inflation to provide base line numbers for the purposes of the cost comparison.

The PwC Report clearly demonstrates that, even at the extreme upper bound demand scenario of 95 mtpa, DBCT (with Zone 4 and 8x expansions) can meet such a level of demand at significantly lower costs than a Stage 1 DPCT (at the smallest first stage that was previously considered feasible of 30 mtpa).

Figure 6: FY18 cost per tonne of incremental expansion options, scaled to capacity requirement (95 mtpa)



Source: PwC analysis

(b) Costs of incremental capacity at existing terminals

The issue of the costs of meeting demand from existing terminals does not actually arise based on the appropriate market definition – as there is, and will continue to be for the proposed declaration period, no other operating terminal in the Hay Point common user coal handling services market.

As discussed in section 5.4 of this submission and analysed in detail in the PwC Report, the incremental costs for a Hay Point catchment user to export tonnage by way of a different coal terminal involve very substantial costs.

7.10 Conclusion

It is therefore absolutely clear from the modelling shown in the PwC Report and the analysis set out above, that that even on the most aggressive of the reasonable demand projections considered, and a series of very conservative assumptions about costs and aggressive forecasts of demand, foreseeable demand is still met at least cost by DBCT rather than any 2 or more facilities.

That reflects the clear understanding in the industry, and the clear findings in the previous DBCT Access Regime certification process.

Consequently, the DBCT User Group considers it is clear that criterion (b) is satisfied.

8 Criterion A - Promotion of competition

8.1 Interpretation of criterion (a)

(a) Overview of approach

Criterion (a) requires consideration of whether access (or increased access) on reasonable terms and conditions as a result of declaration would promote a material increase in competition in a market other than the market for the service.

The DBCT User Group have approached that principally on the basis of considering:

(i) other relevant markets in which the state of competition may be adversely impact – the dependent markets identified in section 6 of this submission; and

(ii) how the likely state of those markets would be altered with and without declaration.

That approach is consistent with the Competition Policy Review Bill EM which states:

> *12.19 … the amendments focus the test on the effect of declaration, rather than merely assessing whether access (or increased access) would promote competition.*
>
> *12.20 This requires a comparison of two future scenarios: one in which the service is declared and more access is available on reasonable terms and conditions, and one in which no additional access is granted. That is a comparison of either: no access without declaration compared with some access as a result of declaration, or some access without declaration to additional access as a result of declaration. In comparing these two scenarios, it must be the case that it is the declaration resulting in access (or increase access) on reasonable terms and conditions that promotes the material increase in competition.*

That approach is also consistent with the preliminary views provided in the Staff Issues Paper.

However, it is worth noting that the various statements of how criterion (a) works in the Competition Policy Review Bill EM assume the criterion is being considered in the context of an entity seeking declaration of a currently undeclared service (where the extent of likely future access without declaration would be clearer). However, the QCA is, in the context of this review, placed in the more unusual position of determining whether a future continuation of declaration would materially promote competition compared to the likely state of access without declaration.

(b) Case study – gas pipelines and the outcomes of removing regulation

In seeking to undertake the exercise of determining the likely state of markets without declaration, the QCA should be mindful of the cautionary tale of the reduction in the extent of regulation of gas pipeline.

In its report following the East Coast Gas Market Inquiry ,[25] the ACCC found that:

(i) there was evidence that a large number of existing pipelines were engaging in monopoly pricing, including specific findings that:

(A) the return some pipeline operators assumed when determining the price of incremental investments was 1.4 – 20 times higher than the

[25] ACCC, Inquiry into the East Coast Gas Market, April 2016 at 8-9.

benchmark return on equity the Australian Energy Regulator had estimated in gas regulatory decisions over the same period;

(B) there was evidence of excessive charges on some pipelines for as available and interruptible charges and forward haulage charges of 2-5 times higher than they would have been if the pipeline had been regulated;

(C) one operator estimated it was earning 70 per cent more in overall pipeline revenue than if it would have been regulated; and

(ii) the monopoly pricing was leading to higher prices and economic inefficiencies in upstream and downstream markets, including:

(A) lower than efficient levels of investment in exploration and reserves development; and

(B) lower than efficient levels of gas use and investment in facilities that use gas.

That is exactly the sort of issue that would result from the declaration of the Service being removed.

(c) Alternative interpretation of criterion (a)

For the purposes of this submission, the DBCT User Group has been willing to approach criterion (a) on the basis of the 'with and without declaration' approach noted above, as criterion (a) is clearly satisfied on that interpretation.

However, for completeness the DBCT User Group notes that that position is not settled law. If the QCA was to consider that on the 'with and without declaration' interpretation criterion (a) may not be satisfied, it would then be incumbent on the QCA to consider the alternative interpretation that is open on the wording of criterion (a).

The alternative interpretation is that:

(i) as criterion (a) continues to use the wording 'access (or increased access)' (without any wording in the QCA Act that indicates the interpretation of those words from the decision in *Port of Newcastle Operations Pty Ltd v Australian Competition Tribunal*[26] has been altered), the criterion should continue to require a comparison of the likely state of the market without or without 'access' (meaning a right or ability to use the service as interpreted in that decision); and

(ii) the additional wording 'on reasonable terms and conditions as a result of declaration' merely indicates that in the usual situation where a party is applying for a declaration that had not yet occurred, that it should be assumed that declaration would result in access (i.e. a right to use the service) being provided on reasonable terms and conditions.

The DBCT User Group considers that on that interpretation it would be absolutely clear that criterion (a) would be satisfied given the very clear damage to competition that would occur in numerous markets if there was no right of access to DBCT.

In particular, if there was no access to DBCT there would be:

(i) a material reduction in competition in the metallurgical coal market, noting that WoodMackenzie estimates:

[26] [2017] FCAFC 124

(A) 46.26 million tonnes of metallurgical coal exports in 2017 were from DBCT

(B) those DBCT metallurgical coal exports accounting for 16% of WoodMacKenzie's estimate of 297 million tonnes of seaborne metallurgical trade and 27% of the estimated 176 million tonnes of Australian metallurgical seaborne exports;

(C) those DBCT metallurgical coal exports accounting for a higher volume than is exported via global seaborne trade than from any other Australian coal terminal outside the Port of Hay Point – such that they would not be replaceable;

(D) there being limited capacity to accommodate the volumes from those mines at other coal export terminals even if it was economic to export them from another terminal,

such that the removal of DBCT access would constitute a substantial increase in concentration in metallurgical coal markets (and hence the declaration would promote a material increase in competition in those markets);

(ii) a total elimination of competition in the DBCT secondary capacity trading market (which is evidently dependent on access to DBCT);

(iii) a material reduction in competition in the Hay Point catchment coal tenements market; and

(iv) a material reduction in the competition in the central Queensland rail haulage market.

Consequently, these submissions focus on demonstrating that criterion (a) would be satisfied on the basis of the interpretation preferred in the Staff Issues Paper.

8.2 What is required to promote a material increase in competition?

Irrespective of whether the test is without or without 'access' or 'declaration' the revised criterion (a) continues to use the wording 'promote a material increase in competition' and there has not been any indication in connection with the recent reforms to suggest that the intention was to change the settled meaning of that wordings.

As indicated in the Allens Advice (enclosed in Schedule 1), the only thing that has arguably changed in criterion (a) is therefore what it is that is required to have produced that promotion – declaration (rather than 'access').

The materiality threshold is described in the exploration memorandum to the bill which introduced the material increase in competition wording to mean *'not trivial'*.[27] In other words, the materiality threshold which is required to be satisfied under criterion (a) is not a particularly high one.

As indicated in the Allens Advice, the threshold for what constitutes promotion of an increase in competition is well established and set out in the Australian Competition Tribunal's decision in *Re Virgin Blue Airlines Pty Ltd.*[28] In that decision the Tribunal stated:

> *In our view, we need to be satisfied that if the Airside Service is declared there would be a significant, finite probability that an enhanced environment*

[27] [1.38], explanatory memorandum to *Trade Practices Amendment (National Access Regime) Bill 2006* (Cth)

[28] [2005] ACompT 5 at [162].

> *for competition and greater opportunities for competitive behaviour – in a non-trivial sense – would arise in the dependent market,*

And similarly:

> *The Tribunal does not consider that the notion of 'promoting' competition in 44H(4)(a) requires it to be satisfied that there would be an advance in competition in the sense that competition would be increased. Rather, the Tribunal considers that the notion of 'promoting' competition in s 44H(4)(a) involves the idea of creating the conditions or environment for improving competition from what it would be otherwise. That is to say, the opportunities and environment for competition given declaration, will be better than they would be without declaration*

It is notable that only a few paragraphs before the first of those statements, Virgin's submissions were referred to indicating that[29]:

> *Virgin Blue also submitted that the requirement that access or increased access "would" promote competition meant "realistically could" and was not to be interpreted as "will" promote competition. Virgin Blue contended that the degree of certainty required by the phrase "would promote competition" is that there is a significant finite probability, rather than that such a consequence be "more probable than not"*

This was also the position taken in *Duke Eastern Gas Pipeline* where the Tribunal stated that:[30]

> *The notion of promotion of competition involves a consideration that if the conditions or environment for improving competition are enhanced, then there is a likelihood of increased competition that is not trivial*

As noted in the Allens Advice, there has not been any judicial decision since then which has changed the legal interpretation of what constitutes a 'promotion of competition' for the purposes of criterion (a).

By way of confirmation, the DBCT User Group notes that the NCC's Guide to Declaration (which reflects the NCC's view of the current law) provides that:

> *3.23 The promotion of a material increase in competition involves an improvement in the opportunities and environment for competition such that competitive outcomes are materially more likely to occur.*

Accordingly, it is clear that for the QCA (and ultimately Minister) to be satisfied in respect of criterion (a), it only requires that there would be a 'significant finite possibility' of an enhanced environment for competition and greater opportunities for competitive behaviour arising from declaration. The QCA (and ultimately Minister) are not required to be satisfied that, if the declaration was to cease there would definitely or even probably be an immediate and material decline in competition levels.

8.3 Contrived counterfactuals and the relevance of future uncertainty

To the extent that DBCTM raises the prospects of:

(a) conducting itself differently; or

(b) dealing differently with users,

[29] [2005] ACompT 5 at [160].

[30] (2001) ATPR 41-821 at 43,061 [75].

in the absence of declaration with a view to seeking to demonstrate that, compared to that proposal, declaration does not promote a material increase in competition that is not, and the QCA should not accept that as, a legitimate counterfactual (i.e. the likely state of the market without declaration) for the purposes of criterion (a).

The DBCT User Group notes the comments in the ACCC's Merger Guidelines about excluding counterfactuals which have been manipulated for the purposes of achieving a particular regulatory decision (at [3.19]):

> *However, the ACCC will not take into account counterfactuals it considers have been manipulated for the purposes of making clearance more likely. Signs that a counterfactual may have been manipulated include:*
>
> - *a change of policy or intention by the merger parties that occurs after the merger is proposed;*
> - *any course of action by the merger parties which cannot be demonstrated to be profit maximising and/or in the interests of shareholders*

That principle is clearly appropriate and should equally apply in this process. To do otherwise, would be to allow an infrastructure provider to completely undermine the purpose of the access criteria.

The QCA is required to determine the likely state of the market without declaration. The QCA will need to be very careful in simply taking an infrastructure provider's word for how it will conduct itself when there is no previous history or experience to support that.

So, for example, if DBCTM was to indicate that it would:

(a) offer alternative contractual terms of access in the absence of declaration;

(b) procure that BPC ceased operating in the DBCT secondary capacity trading market; or

(c) not vertically integrate in the future,

those would not be a proper counterfactual for assessing criterion (a).

If a service becomes undeclared on the basis of an artificial, contrived or manipulated counterfactual of that nature, constructed predominantly for the purposes of satisfying criterion (a), that will have very damaging outcomes.

That is particularly the case given that, if the declaration was removed on the basis of such an asserted position by DBCTM, and then that position was subsequently changed, the damage to competition could not be resolved quickly by seeking re-declaration. That is the case because the time frame to seek a declaration and for the QCA and Minister to make decisions regarding satisfaction of the access criteria:

(a) would result in a material lessening in competition in the interim; and

(b) at least in the event of some changes, such as future vertical integration, permanently damage the extent of competition in some markets.

8.4 What is the likely position on access with declaration

(a) Status quo likely to continue if declaration continues

Criterion (a) requires, on any interpretation, a determination as to the likely state of the market with declaration.

While that is actually a test as to the future likely state of the market – the DBCT User Group consider it is very well modelled by the existing arrangements, which would be anticipated to continue in a similar fashion in the event of the Service continuing to be declared.

The DBCT User Group considers that the QCA can be extremely confident that the likely state of the market with declaration is accurately reflected by the current position as:

(i) while changes have been made to the standard access agreement and access undertaking during the period in which DBCT's services have been declared – the terms have remained materially the same;

(ii) the QCA's methodology in relation to pricing matters has remained transparent, certain and materially consistent throughout that period and is anticipated to continue to do so;

(iii) the evergreen renewal rights which have existed in each iteration of the standard User Agreement (see clause 20) will result in previous user agreements continuing; and

(iv) the other rights in the QCA Act in relation to declared services have remained materially unchanged since the QCA Act's introduction.

(b) Principal protections that currently exist

The access undertaking provides some very important protections that facilitates competition in dependent markets.

In particular, the undertaking provides for each of the following:

(i) the QCA being responsible for approving the Terminal Infrastructure Charge (which ensures an efficient and reasonable price for all access holders, and long term certainty as to how prices will continue to be calculated in the future);

(ii) a standard user agreement – setting reasonable terms and conditions for access, that are available for all access seekers, including:

(A) an evergreen renewal right that provides secure long term access to users;

(B) compliance with the terminal regulations – which contains substantial protections against operational discrimination (and provisions which protect the users from discriminatory changes to such terminal regulations);

(iii) protections for users to ensure appropriate changes are made to the access undertaking in the event that the user owned operator is removed (which is important as the current undertaking and user agreements assume prudency of operating charges by the operator given the user ownership structure, and further checks and balances would be required to prevent operational discrimination if a third party operator was engaged);

(iv) a transparent queuing process which provides an even playing field for all access seekers, including a 'notifying access seeker' regime that enables an access seeker to obtain access if other access seekers do not contract for the available access at the same or an earlier time;

(v) a clear, transparent and certain path to expansion of the terminal where sufficient demand exists;

(vi) the ringfencing provisions which provide protections not just in relation to BPC, but any future vertically integrated supply chain business;

(vii) a best endeavours requirement to pursue supply chain efficiency initiatives; and

(viii) the disclosure and reporting regime – which provides transparency and accountability.

8.5 What is the likely position on access in the absence of declaration – general analysis

Given the uncertainty in relation to the appropriate interpretation of criterion (a), the DBCT User Group has sought to identify the likely state of the market in the absence of declaration – both generally, and in a number of specific dependent markets.

(a) Termination of existing access undertaking

The first point is that the existing approved access undertaking would be automatically terminated as a result of paragraph (b) of the definition of Terminating Date in DBCTM's approved 2017 Access Undertaking.

Consequently all of the protections currently provided for in the approved access undertaking would cease to apply.

The QCA is obviously familiar with the full extent of the protections provided by the undertaking. However, all of the major protections described in section 8.4(b) would be lost if the declaration ceased.

(b) Loss of protections under the QCA Act

In addition, all of the protections which exist in respect of declared services under the QCA Act would also cease.

The protections which existing and future potential users would be deprived of include:

(i) the obligation on DBCTM to negotiate in good faith (section 100 QCA Act);

(ii) the obligation to make all reasonable efforts to try to satisfy the reasonable requirements of the access seeker (section 101 QCA Act); and

(iii) the prohibition on DBCTM and its related bodies corporate of engaging in conduct for the purpose of preventing or hindering a user's access to the service under an access agreement (including providing access to a related body corporate of the access provider on more favourable terms than a competitor: section 104(2) QCA act) (section 104 QCA Act).

The DBCT User Group particularly notes the importance of the protections against future integration where Brookfield has pursued possible acquisitions of Asciano (the owner of Pacific National) and various coal mines (in connection with a consortium proposal in relation to WICET).

(c) Continuation of Existing User Agreements

The DBCT User Group considers that the existing User Agreements would continue to apply.

The DBCT User Group notes for completeness that DBCTM has alleged that the User Agreements may be discharged by the doctrine of frustration due to the User Agreement's references to the access undertaking and QCA's determinations ceasing to operate.

However, the DBCT User Group has received clear legal advice from Allens, enclosed as the Allens Advice in Schedule 1 that the existing User Agreements will remain on foot.

As described in more detail in the Allens Advice, that conclusion has principally been reached because the User Agreements:

(i) continue to provide for pricing reviews every 5 years in the absence of an undertaking (see the definition of 'Agreed Revision Date');

(ii) in the absence of the pricing being able to be agreed or determined by the QCA, provides for a right for determination through arbitration (see clause 7.2(e) User Agreement); and

(iii) none of the references to the QCA or access undertaking in respect of non-pricing matters are sufficient material to meet the threshold for the doctrine of frustration.

The existing User Agreements do not provide for automatic termination in the same manner as the access undertaking, and have renewal rights such that, for as long an existing user has coal production to support them, they do provide some level of protections to existing users.

However, while the existing User Agreements will continue those protections importantly:

(i) they provide lesser protections than is currently the case - in particular, replacing the QCA's responsibility for pricing with the negotiate – commercial arbitrate regime, with the arbitrator's only real guidance to how to make the decision being the limited principles set out in clause 7.2(e) is a significantly worse position for users; and

(ii) do not provide any protection for any future access seekers that are not access holders at the time of the declaration ceasing.

The result of that position, is that there is a different treatment of existing and new users which will distort competition in dependent markets.

(d) Case Study: APCT Price Reviews

The APCT User Agreements provide for pricing to be calculated in accordance with a series of detailed principles, together with periodic price resets. If pricing is not agreed at a price reset then there is a right for a user (or APCT) to arbitrate.

That negotiate – commercial arbitration model has proved to be very contentious and fraught at APCT (which the DBCT User Group are well placed to comment on, given that some of the companies that are DBCT Users are also APCT users through different mines).

Despite the principles in the APCT User Agreement, being more far more detailed than what is provided for in clause 7.2(e) of the DBCT User Agreement:

(i) the APCT users have never agreed the proposed charges based on the APCT's operators' initial proposal;

(ii) the APCT users have always considered they do not have sufficient information to determine the appropriate pricing;

(iii) the APCT users have, as a consequence been forced to incur significant costs of lawyers, economists and disputes with each price review – both to understand and challenge the APCT operator's initial pricing proposal; and

(iv) that has resulted in differential pricing (through confidential settlements) and arbitrations (some of which are currently ongoing).

The DBCT User Group considers the QCA should carefully consider the example of APCT in seeking to understand the likely state of markets without declaration of the Service.

(e) **Port Services Agreement**

The DBCT User Group acknowledges the existence of the Port Services Agreement (***PSA***), which they understand contains obligations owed by DBCT Management in favour of DBCT Holdings Pty Ltd (a State government owned corporation) to use reasonable endeavours to submit a voluntary access undertaking to the QCA that reflects certain principles specified in the proposed market.

However, the DBCT User Group notes that:

(i) no other stakeholders (i.e. access holders, access seekers, rail haulage or rail network providers) are a party to the PSA and the PSA is not expressed to be for their benefit.

(ii) due to no other stakeholders being a party to the PSA:

(A) other stakeholders are not aware of the full terms of the PSA which have been kept confidential by DBCTM and DBCT Holdings Pty Ltd;

(B) other stakeholders cannot enforce obligations under the PSA; and

(C) the obligations of DBCTM can be waived or amended by the agreement of the State/DBCT Holdings Pty Ltd without the agreement or consent of other stakeholders.

The DBCT User Group notes that DBCTM has previously sought the State's support for amendment of the obligations under the PSA on the basis of assertions that the terminal services should not be declared (which occurred following the High Court's decision in the Pilbara rail disputes). The Users anticipate that the likely result of the declaration expiring or being revoked would be for DBCTM and the State to agree to remove the obligations.

In addition, it is not anticipated that an obligation to submit a voluntary access undertaking (which can occur under section 136 QCA Act) will provide stakeholders with reasonable terms of access.

That is the case, because:

(i) DBCTM will have no incentive to put in place such an undertaking in the absence of a threat of declaration or future arbitration of the terms of access;

(ii) DBCTM would be clearly economically incentivised (in the absence of declaration) to reduce the extent of regulation, increase prices and increase its power and commercial flexibility from the position that the QCA has considered appropriate in each approved access undertakings for the terminal services to date;

(iii) DBCTM will also control the contents of any such proposed access undertaking and is highly unlikely to include terms the QCA has otherwise indicated it considers are appropriate (otherwise there would of course be no need to seek to have the declaration removed as DBCTM are);

(iv) the QCA would not have power to compel DBCTM to submit an access undertaking to replace the approved undertaking that would terminate with the declaration ceasing (s 133 QCA Act only applies to declared services);

(v) the QCA has no power under the QCA Act to require a resubmission by DBCTM if the QCA refuses to approve any such voluntary undertaking that was submitted (see the difference between section 134 and 136 QCA Act); and

(vi) while section 136A QCA Act initially appears as if it might give the QCA power to compel an undertaking to be resubmitted, that requires DBCTM to voluntary submit again after an initial refusal to approve by the QCA and the QCA has no way of compelling it do so. DBCTM would be economically incentivised not to do so, and since the introduction of that section no regulated infrastructure provider has put itself in the position of triggering the application of section 136A QCA Act.

Consequently, in the absence of declaration, the DBCT User Group considers it is highly likely that stakeholders would cease to have the benefit of each of the matters currently regulated by the access undertaking (as discussed in section 8.5(a) of this submission above).

8.6 Monopoly pricing to coal producers

One of the reasons DBCT (and the Service) are so critical to Queensland's economy is that the vast majority of the terminal services are provided in respect of export of metallurgical coal.

In fact, more Australia exports of metallurgical coal occur through DBCT than all other Australian coal terminals put together.

In the absence of declaration, DBCT would be incentivised to significantly increase prices.

That incentive arises because, as discussed in detail in section 5 of this submission above, the services of other coal terminals are not substitutable.

DBCT's incentives are to maximise profit, which is not the same as wanting to maximise output.

As discussed earlier in this submission, there are substantial constraints and limitations on coal producers ability to substitute coal handling services at another terminal for the Service provided by DBCT.

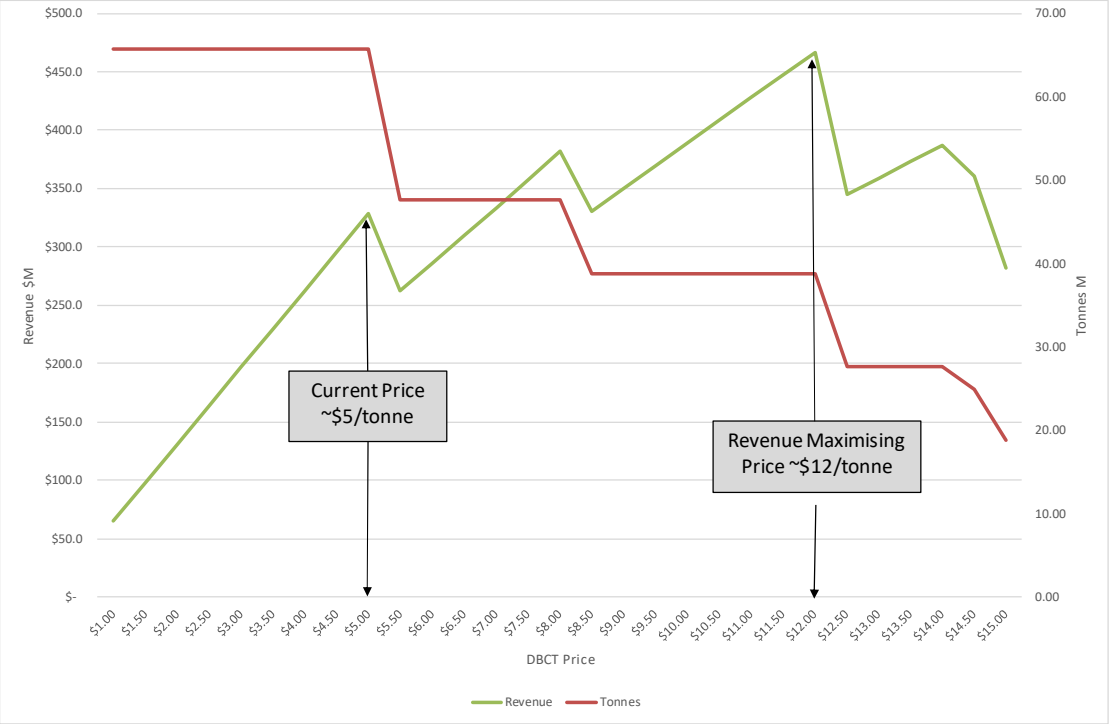
However, even ignoring the non-cost constraints, DBCTM would be economically incentivised to increase charges to the point just before it becomes economic for users at the margin of the geographic boundary of the market to switch to an alternative coal supply chain.

Given the significant incremental infrastructure costs (discussed earlier in this submission) for accessing another terminal, this is a material amount.

The Castalia Report models for each mine currently utilising DBCT the overall costs from mine to ship for transport to the alternative coal terminals, assuming a completely unconstrained ability for producers to switch terminals (which, given the substantial non-price constraints to switching noted earlier in this report will materially understate the price rise that could occur before substitution), to determine how individual users would react to price rises by DBCTM and ultimately to thereby model the profit maximising point for DBCTM.

The Castalia Report identifies this revenue maximising point as approximately $12 per tonne as shown below:

DBCT: Throughput and Revenue



That makes it clear that, given the absence of competitive constraints it would be possible for DBCTM to charge monopoly rents which is likely to be profit maximising even at a significantly reduced volume.

There is a risk that this goes even further, and that DBCTM may be influenced to favour any related parties it has or favour larger coal companies over smaller coal companies (due to perceptions around more favourable credit rating and ability to use the capacity across a portfolio of mines). The incentive to favour an incumbent was the very situation that was found to be of concern in the Sydney Airport proceedings.

The price increase would be wholly borne by coal suppliers who are price takers in coal markets, thereby worsening their position on the cost curve, and impacting on their behaviour in dependent markets.

This is a very different set of circumstances to those analysed by the NCC, Minister, Tribunal and courts in relation to the Newcastle shipping channel declaration proceedings. In particular:

(a) The DBCT terminal infrastructure charge is much higher/more material than the charge for channel services which was relevant to the shipping channel proceedings; and

(b) The mines which use the terminal services have far less uniform levels of profitability / ability to withstand pricing volatility / uncertainty / changes (given the more varied product – premium hard coking, PCI, thermal; and position on the cost curve –driven by open cut/underground and differences in scale)

That distortion of competition in metallurgical coal markets – would be likely to be a material reduction in competition if the declaration expired.

That is particularly evidently the case when it is considered how much of the metallurgical coal market DBCT exports are. As noted above, WoodMacKenzie indicates:

(A) 46.26 million tonnes of metallurgical coal exports in 2017 were from DBCT;

(B) those DBCT metallurgical coal exports accounting for 16% of WoodMacKenzie's estimate of 297 million tonnes of seaborne metallurgical trade and 27% of the estimated 176 million tonnes of Australian metallurgical seaborne exports;

(C) those DBCT metallurgical coal exports accounting for a higher volume than is exported via global seaborne trade than from any other Australian coal terminal outside the Port of Hay Point – such that they would not be replaceable;

(D) there being limited capacity to accommodate the volumes from those mines at other coal export terminals even if it was economic to export them from another terminal,

However, this effect is even clearer in three other dependent markets – so those dependent markets are analysed in more detail below.

8.7 Promotion of Competition – Hay Point Catchment Coal Tenements Market

The principal issue in the Hay Point catchment coal tenements market is that, declaration (through the undertaking), currently creates conditions and an environment which facilitates competition in the tenements market.

In particular, the DBCT User Group notes that those members of the DBCT User Group that have invested in the Hay Point catchment tenements market in the last few years have confirmed that the declaration (and resulting protections in the DBCT access undertaking referred to in section 8.4 – principally regulated efficient pricing, standard terms of access, a transparent queue, and long term regulatory certainty) were a critically important part of their investment decision.

Whereas, the absence of declaration will materially impact on competition in the Hay Point catchment coal tenements market due to the differential way it would impact on potential acquirers of coal tenements in that market.

In particular:

(a) BMA/BMC will not be materially adversely impacted (to the extent future production would be able to be accommodated at HPCT) as potential acquirers of tenements in the catchment by the declaration ceasing – as they will continue to have access to HPCT (and, which due to the coal handling services being supplied by an affiliate, will be provided at an efficient cost);

(b) existing DBCT access holders will have the protection of the existing user agreements continuing, which provides certainty of access for as long as the renewal rights are exercised, and some arrangement in relation to future pricing through the contractual price review and rights for commercial arbitration (albeit one that will put them at a disadvantage to BMA/BHP Mitsui); and

(c) all other potential buyers of tenements will be at a material disadvantage to both BMA/BHP Mitsui and the existing DBCT access holders due to being highly exposed to DBCT Management's conduct, with no certainty of access, pricing or other access terms, where DBCT Management will have the power and economic incentives to act as a monopolist.

It is clear from that alone, that the result of the declaration ceasing would be to severely disadvantage the very type of company that has more recently been active in buying exploration / development projects in the Hay Point catchment coal tenements market.

For example, each of Stanmore, Pembroke, Fitzroy Resources, TerraCom and Whitehaven recently entered the tenements market, in part in reliance on the certainty and transparency of future pricing and access to DBCT that is provided by the access undertaking.

In the absence of declaration, new entrants will be unable to model future pricing without any certainty. At best they will effectively have to build in a substantial contingency and discount to their cash flow modelling for a new project, with the likely result of not being able to match bids from existing users of DBCT or HPCT.

The differential impact on new users will be material as:

(a) DBCTM will have the power and incentive to materially increase the price of coal handling services (as that would be a profit maximising strategy for a monopolist in DBCTM's post-declaration position) – as discussed in the Castalia Report;

(b) the cost of the Service and resulting change in infrastructure costs (particularly when related rail costs are taken into account) will be significant proportions of a coal producer's costs – such that unlike the findings in the Newcastle shipping channel proceedings, the impact on a producer's investment decisions in the tenements market will be material – again as discussed in the Castalia Report; and

(c) even if DBCTM was to offer any future contractual arrangements they are highly unlikely to provide the certainty of long term pricing and efficient pricing levels required in order for potential producers to continue to invest in acquisition of tenement in the Hay Point catchment coal tenements market.

As a result the competition to explore for, buy and sell tenements will be significantly reduced. There is a real risk that non-current DBCT users will ultimately exit from, or play a much diminished role in, the market.

That will impact on the market in two clear ways:

(a) such non-current DBCT Users will cease to be vigorous and effective competitors for the acquisition of such tenements – such that demand side competition will diminish; and

(b) non-current DBCT Users which are existing holders of tenements will be far less incentivised to incur money on exploration with a view to becoming a supplier in the tenements market, such that supply into the market will reduce over time.

That will clearly satisfy criterion (a), as the participation of such players as a major source of supply and demand in the tenements markets is a promotion of a material increase in competition arising from the declaration.

It is also worth noting the commentary in the Tribunal decision *In the Matter of Fortescue Metals Group Limited*[31] where it was said (our emphasis added):

> ***The two bases upon which it could be said that competition will increase are first, access to rail would encourage tenement holders to incur further expenditure in exploration and so improve what is known about the resource or second, if the quantity of tenements sold increases. Either outcome would result in an increase in competition, because it could produce a better quality or a greater quantity of traded tenements***.
>
> …

[31] [2010] ACompT 2 [1121]-[1128]

The NCC contends that potential purchasers of iron ore tenements will have less incentive to purchase a tenement if there is no viable means of transporting the mined ore for processing or export. The NCC also argues that without access to rail infrastructure services, tenement owners would have a reduced ability to develop their tenements because returns would be less without access to rail transport and tenement owners would be less likely to be able to raise the funding necessary to develop a deposit.

It may be accepted, as has been put by witnesses such as Mr Young from BC Iron and Mr Richards from Brockman, that it is not viable for the owner of a tenement with a small resource to construct its own rail infrastructure and to exploit the iron ore deposits without gaining access to rail infrastructure. Hence, if there is access, there will be, at least for those tenement owners, a greater incentive to spend more on exploration.

It may also be accepted that it is possible that access to any one line will lead to an increase in tenement prices and thus an increase in the incentives to increase expenditure and tenement development, and bring more tenements online in the vicinity of that line. It is difficult to avoid this conclusion without rejecting the evidence of Mr Young and Mr Richard. This we are not prepared to do.

While there are obviously some differences, the key points that are analogous in respect of the Service are that the threat and ongoing uncertainty about future pricing levels at DBCT would be anticipated to result in a reduction, deferral or cessation of future investment in Goonyella tenements by.

(a) potential acquirers being deterred from what would otherwise be efficient investments in acquisitions of Hay Point catchment coal tenements (given the damage done to the ability to 'bank' a project as a result of high and uncertain margins being transferred to the infrastructure provider);

(b) existing holders of Hay Point catchment coal tenements being deterred from what would otherwise be efficient investments in exploration of Goonyella coal tenements (with a view to being a future supplier of tenements),

and that deterrent impact being particularly exacerbated in response of lower profit margin acquirers and new entrants – effectively removing likely acquirers and potential suppliers from the 'junior end' of the market.

It cannot be overstated the impact which the ability for small companies to be able to access DBCT (on guaranteed standard terms and effective pricing through a transparent access queue) has had on facilitating participation in the tenements market through new entry of vehicles like Stanmore (Isaac Plains), Fitzroy Resources (Carborough Downs, Broadlea), Realm Resources (Foxleigh / Middlemount South) and Terracom (Blair Athol) through acquisition of coal tenements.

In other words the very type of acquirers who have been active in recent times in the tenement market – would be likely to be excluded from the market.

Users consider the number of potential buyers for such Goonyella system development project tenements would be greatly reduced in the absence of declaration given the much greater barriers small producers of that nature would face in gaining access to the terminal on reasonable terms (including efficient / economic pricing), the likely inability to 'bank' a greenfield coal project and the complete lack of alternative terminals which could be used to export product from such projects.

In other words – the declaration has very clearly promoted a material increase in competition in the Hay Point coal tenements market.

8.8 Promotion of Competition – DBCT Secondary Capacity Trading Market

As noted earlier in these submissions, DBCTM is vertically integrated in respect of its related secondary trading operation, BPC ,which has been, since its establishment, a related body corporate.

Declaration has given rise to QCA regulation (via terms of the access undertaking) of the anti-competitive effect which would otherwise arise from that vertical integration – by restricting how the secondary trading operation can conduct itself (refer to section 9.1 and Schedule H DBCT 2017 AU and section 9 of the November 2016 QCA Final Decision on the 2015 DAU

In particular, the regulatory arrangements arising from declaration:

(a) makes it impossible for DBCTM to refuse (or condition) consents to transfers on the basis that the trade is done through the secondary trading operation; and

(b) prohibits stockpiling/reserving capacity by BPC.

In the absence of declaration, there would be no restriction on anti-competitive behaviour such as:

(c) DBCTM refusing to consent to assignments/capacity trading (under clause 12.2 and 12.5 of the User Agreements) unless done through the secondary trading business; and

(d) BPC acquiring all surplus capacity and then only selling it on a monopoly pricing basis.

In combination with the requirement for consents to assignment which exist in each User Agreement this would allow DBCTM's related secondary trading business to have a monopoly in the DBCT secondary capacity transfer market.

By contrast, with declaration and the resulting undertaking, producers can (and do) have a choice of dealing directly with each other – such that DBCTM's related secondary trading business competes with producers who have surplus capacity for such trading.

Given that removal of the declaration would eliminate competition in the DBCT secondary capacity trading market, it is clear that declaration has created the conditions or environment for improving and enhancing competition (in a manner that is not trivial), and without declaration that would cease, such that criterion (a) will be satisfied.

8.9 Promotion of competition – central Queensland coal haulage market

There are three haulage operators that currently operate in the central Queensland coal haulage market: Aurizon Operations, Pacific National and BMA Rail.

BMA Rail hauls BMA production to HPCT. It is not available to haul coal for non-BHP affiliated coal producers, as (like HPCT), BHP is likely to be economically incentivised to coordinate its above rail operations with those at HPCT and mines, as a single user of the supply chain infrastructure involved, in the interests of capturing efficiencies.

Consequently for all other users, there is effectively two potential providers. Until the entry of Pacific National into the market in 2009, there was only one supplier (Queensland Rail – what is now Aurizon Operations).

The DBCT User Group's understanding is that Pacific National's entry was materially facilitated by three factors:

(a) The regulatory arrangements in respect of the central Queensland coal region network;

(b) The regulatory arrangements in respect of the Service at DBCT (with some of the initial haulage services being contracted for Goonyella mines – DBCT services); and

(c) Its entry being 'sponsored' by a significant volume long term rail haulage contract negotiated with Rio Tinto and Glencore (then Xstrata), providing haulage to 4 mines (2 transport coal to DBCT), with Anglo American also entering at a similar time a further contract with Pacific National for another 3 mines (all transporting coal to DBCT).

There are other coal rail haulage providers – most evidently Genesee & Wyoming Australia (which operates Hunter Valley coal haulage services) and international operators who would have the technical capability to enter the central Queensland rail haulage market. However, for new entry to be possible (and for a credible threat of entry to exist), the factors which existed to facilitate Pacific National initial investment need to continue to exist. Similarly those conditions are needed for both Aurizon Operations and Pacific National to continue to invest in rolling stock and vigorously compete for future coal rail haulage work in Queensland.

For a new entrant to invest in rolling stock and new maintenance and provisioning facilities, or an incumbent to invest in modernised new rolling stock, which is specific to Queensland's existing narrow gauge network with a long asset life (of at least 20-25 years, likely longer), the haulage operator needs to have long term certainty about the terms of, price of, and certainty of obtaining access.

While it is acknowledged that rail haulage providers do not directly contract access at DBCT, they need certainty that:

(a) the provider of the Service will not become a vertically integrated with a supply chain business and then favour their related rail haulage operator or coal producer (or discriminate against non-related entities) – noting that Brookfield has in the last 2 years sought to acquire Asciano (including Pacific National) and proposed to buy coal mines in connection with a proposal restructuring of WICET;

(b) the provider of the Service will not engage in monopoly pricing that will hinder future investment in coal production and/or damage the financial viability of existing coal producers;

(c) the provider of the Service will work collaboratively to improve supply chain efficiency; and

(d) the provider of the Service will expand the terminal when demand exists to do so to provide for growth in the haulage business.

Yet, it is the undertaking that currently provides protections against each of those matters.

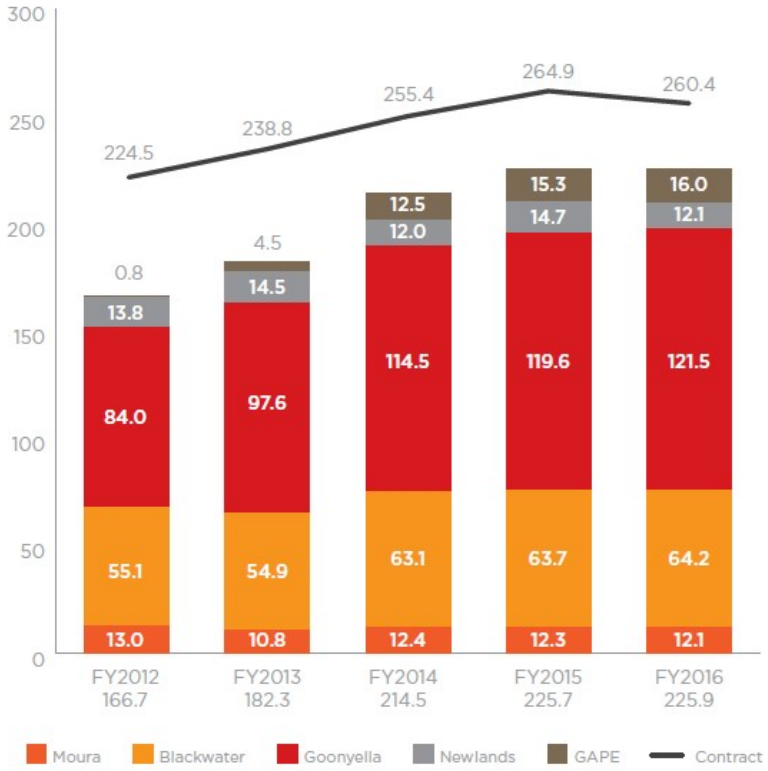
In that context, it seems very clear to the DBCT User Group that declaration has created the conditions or environment for improving and enhancing competition (in a manner that is not trivial), and without declaration that would cease, such that criterion (a) will be satisfied.

The DBCT User Group does not think it is an answer to say that competition is not impacted as the market is central Queensland coal region wide and the DBCT/Goonyella system only constitutes part of that market.

The Goonyella system provides the largest amount of railings in the central Queensland coal region network, as demonstrated in the diagram below taken from Aurizon Network's development plan. For any new entrant to the market – the Goonyella is a system where it is critical that you are able to provide services in order to be able to effectively compete in the central Queensland coal region rail haulage market (and have sufficient initial scale to underwrite the initial investment). Based on the figures below, it is clear that an impact on competition in the

Goonyella system produce a material (not trivial) impact on the haulage market across central Queensland.

Figure 5: Actual throughput and contract capacity (mtpa) FY2012 – FY2016



Source: Aurizon Network Development Plan 2016-17

8.10 Conclusion

The DBCT User Group considers it is clear that access (or increased access) on reasonable terms and conditions as a result of declaration of the Service would promote a material increase in competition in a number of markets (as the declaration has clearly created conditions or an environment for improving and enhancing competition, which the cessation of the declaration would eliminate) including in at least:

(a) the Hay Point catchment coal tenements market;

(b) the DBCT secondary capacity trading market ; and

(c) the central Queensland coal rail haulage markets,

and potentially the metallurgical coal market, such that criterion (a) is clearly satisfied.

9 Criterion C – Significance of DBCT

9.1 Interpretation of criterion (c)

Criterion (c) requires consideration of whether 'the facility for the service is significant, having regard to its size or its importance to the Queensland economy'. To date, there has been no need for consideration under the QCA Act and limited need for consideration of the requirement of 'national significance' in the context of the national access regime.

Many of the assets considered at a national level have been linear services, such as rail and pipeline networks, such that they are of limited assistance in terms of providing a precedent for what size facility might be of national significance.

However, the NCC and relevant Minister recently determined that the Newcastle shipping channel is of 'national significance'. That decision was primarily founded on the basis that the channel provides for throughput of approximately 160 Mtpa of trade (including 154 Mtpa of coal), principally servicing the Hunter Valley coal industry, with a value of approximately $15.5 billion (including $13.6 billion for coal). That decision noted the status of coal as Australia's second most valuable export was a relevant factor in determining the significance of the channel and its link to coal exports.

The DBCT User Group agree with the QCA staff's view as expressed in the Staff Issues Paper that the following factors are relevant:

(a) Size and capacity of the facility – including the physical capacity of the facility and its physical and geographic dimensions (including the size of its footprint and/or its start and end points); and

(b) Importance of the facility to the Queensland economy – including by reference to its contribution to exports, employment and GDP.

In relation to a facility such as DBCT, which forms the end point of the Australian components of a Queensland coal supply chain, the DBCT User Group consider it is relevant to consider both the Terminal's direct contributions to the Queensland economy and DBCT's indirect contributions (principally by being the only viable common-user export terminal for mines in the Goonyella system).

9.2 DBCT is of significance

DBCT clearly satisfies criterion (c) when having regard to the size of DBCT and its importance to the Queensland economy.

(a) Previous views and findings in certification process

The issue of the significance of DBCT was required to be considered in the State's successful application to certify the DBCT Access Regime as an effective access regime under Part IIIA of the CCA.

The State's application referred to DBCT's significance (at pages 25-27) by reference to:

(i) numerous factors relating to the size of DBCT including: capacity (85 mtpa), throughput (then 63 mtpa), physical area (200 hectares of land), train unloaded (up to 2km long and with an average payload of 9600 tonnes), stockyard area and capacity (almost 67 hectares and over 2.28 million tonnes capacity); size and number of major pieces of plant and equipment, length of conveyors and jetties (3.8 km),

(ii) economic issues regarding:

(A) the coal industry and its important to the State's economy (estimated $26 billion in contribution or 11% of Queensland's gross value add, direct support of tens of thousands of jobs, over 159 million tonnes exported to 35 countries making Queensland the largest exporter of seaborne coal in the world and coal Queensland's largest export industry); and

(B) DBCT's importance to the coal industry (around 30% of Queensland's coal exports and around one fifth of Australia's coal exports occurring via DBCT).

The State's view of the significance of DBCT was clearly accepted by the NCC and Commonwealth Minister during the certification process.

In particular, the NCC final recommendation contained the finding (at [5.10]) that:

> *The DBCT is a significant infrastructure facility, having regard to its size and importance to Queensland's economy.*

That finding was accepted by the relevant Minister with the Statement of Reasons supporting the certification decision including the following conclusion:

> *I consider that the scope of the DBCT Access Regime is consistent with CPA principles.*
>
> *The DBCT is a significant infrastructure facility, having regard to its size and importance to the Queensland economy,*

It is notable that since the State, NCC and Commonwealth Minister concluded that the terminal was of State significance:

(iii) the coal industry 's contribution has substantially grown – as demonstrated in the PwC Report; and

(iv) the contribution of DBCT itself has grown (with significantly higher annual throughput than existed at the time of certification application) – the currently annualised rate is approximately 71 mtpa.[32]

Consequently, it appears clear from the previous certification process that DBCT is, and continues to be, a significant infrastructure facility, having regard to its size and importance to Queensland's economy.

That is entirely consistent with the actions of the State in determining to privatise the terminal via lease (rather than a permanent divestment), to do so subject to ongoing obligations under the PSA and to ensure regulation applied from the point of privatisation – all of which point to the State having previously formed the view that DBCT was significant.

[32] NQBP figures for Dalrymple Bay Coal Terminal: https://nqbp.com.au/trade/throughputs#POM-annual

(b) Size of the Terminal

The Terminal is clearly significant having regard to its size.

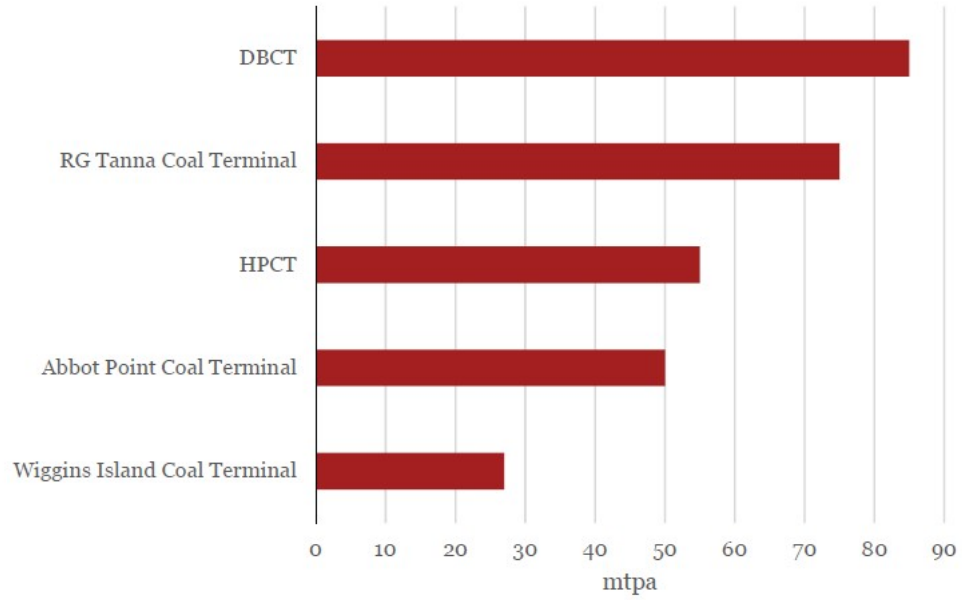
Source: DBCT Management 2010

The most recent expansion of the Terminal in 2009 increased the nameplate capacity of the Terminal to its current 85 Mtpa and it is still capable of further expanding its capacity.[33]

The Terminal is now Queensland's largest standalone coal export terminal and is one of the largest coal export terminals in the world.

[33] DBCT Management – Master Plan 2016; Expansion Opportunities at the Dalrymple Bay Coal Terminal.

Figure 12: Nameplate capacity of Queensland coal export terminals



Source: North Queensland Bulk Ports (2016), *Port of Hay Point Operations Manual*, available at: https://nqbp.com.au/__data/assets/pdf_file/0013/3280/Port-of-Hay-Point-Operations-Manual-2016-2017.pdf, North Queensland Bulk Ports (2016), *Port of Abbot Point Operations Manual*, available at: https://nqbp.com.au/__data/assets/pdf_file/0020/3278/Port-of-Abbot-Point-Operations-Manual-2016-2017.pdf, WICET (2018), *Access*, available at: http://www.wicet.com.au/irm/content/access1.aspx?RID=379, Queensland Government, Department of State DEvelopmenthttp://statedevelopment.qld.gov.au/resources/plan/ports/draft-master-plan.pdf

The Terminal is configured across approximately 214 hectares of strategic port land and 160 hectares of off-shore sea-bed lease.

The infrastructure supporting the Terminal includes:

(i) four stackers, three reclaimers, five stacker-reclaimers, three outloading systems and three shiploaders;

(ii) three rail receiving stations and a 3.8 kilometre jetty;

(iii) nearly 67 hectares of stockyard with capacity for over 2.28 million tonnes of coal; and

(iv) 1,656 kilometre wharf featuring four off-shore berths capable of accommodating ships ranging from 40,000 – 220,000 deadweight tonnes.

This infrastructure supports management of all coal types including the ability to blend coal at, and co-ship coal from, DBCT to meet buyer requirements.

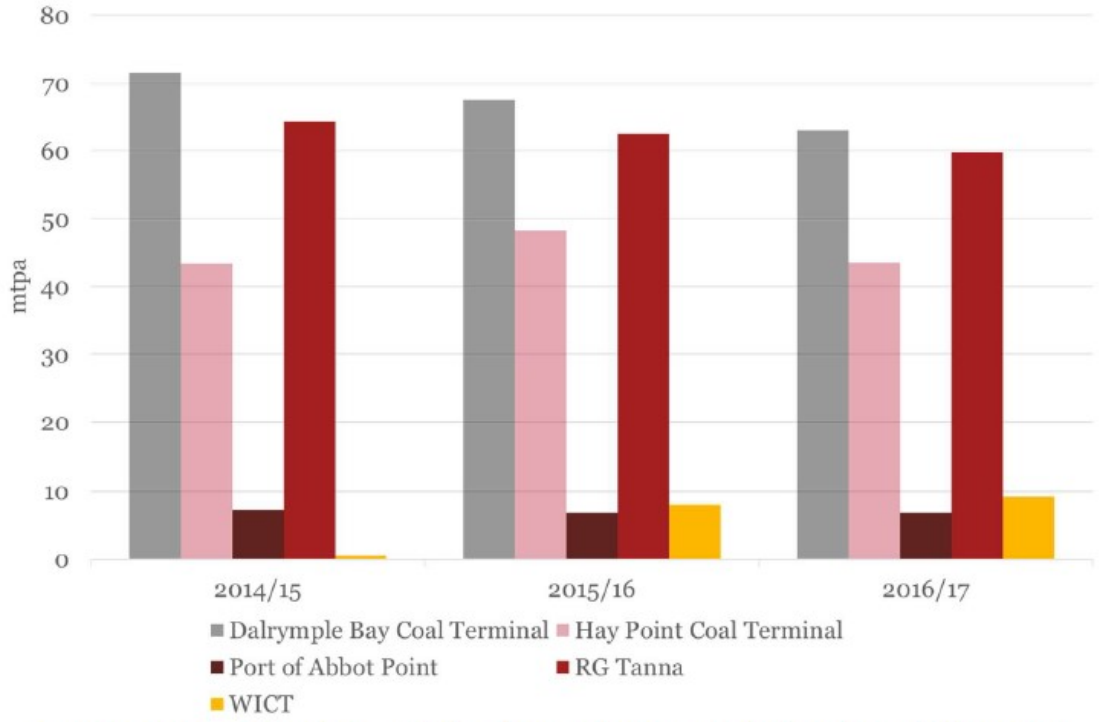
(c) Importance to the Queensland economy

The Terminal is clearly significant having regard to its importance to the Queensland economy.

In 2016, Queensland was the largest exporter of metallurgical coal in the world. As metallurgical coal resources in Queensland are confined to the Bowen Basin region (and predominantly mined in the Goonyella system region), much of those resources are exported via DBCT making the Terminal the gateway to market for much of Queensland's coal resources.

The below figure from the PwC Report shows the extent of coal exports via DBCT relative to other coal terminals in Queensland:

Figure 13: Coal exports at Queensland ports, 2014/15 to 2016/17



Source: NQBP (2018) *Throughputs*, available at: https://nqbp.com.au/trade/throughputs, Gladstone Ports Corporation (2016), *Annual Report 2015-2016*, available at: http://www.gpcl.com.au/SiteAssets/Annual%20Reports/GPC_2015-16_Annual_Report.PDF#search=Annual%20Report%2015%2F16, Gladstone Ports Corporation (2017), *Annual Report 2016/17*, available at: http://www.gpcl.com.au/SiteAssets/Annual%20Reports/GPC_Annual_Report_2016-17.pdf

As the PwC report notes, coal exports are a vital economic driver in Queensland having made up 44% of total exports by value in Queensland for 2016/17, equating to $3.41 billion of royalties payable to the state. As the only common-user terminal that mines in the Goonyella feasibly have access to, the Terminal is critical infrastructure for the Queensland coal industry and the contributions that industry makes to the Queensland economy. In particular, the Terminal handled 27% of Australia's metallurgical coal exports in 2017.

In total, the Terminal exported over 63 million tonnes of coal in 2017, contributing substantial amounts to Australia's GDP and Queensland Government royalties.
Having operated on a 24 hours/7 days a week basis for approximately 35 years, the Terminal Operator employs approximately 300 workers in addition to 50 contractors and further personnel employed directly by DBCTM.

The significance of DBCT to the Queensland economy extends well beyond aspects of pure volume given:

(i) the Port of Hay Point's role as one of four Queensland priority ports under the Reef 2050 Long-Term Sustainability Plan and the related prohibition on major capital dredging for the development of new or expansion of existing port facilities in the Great Barrier Reef World Heritage Area outside of the priority ports under the *Sustainable Ports Development Act 2015* (Qld);

(ii) the strategic role DBCT plays in coal producers' ability to pursue co-shipping options for different coking coals (that are not available at other terminals (which service far fewer hard coking coal producers).

The DBCT User Group notes the reasoning in the Newcastle shipping channel decisions about the importance of the coal industry and considers it is clear that if the shipping channel is of national significance, DBCT is at least of state significance when noting the higher value of the metallurgical coal throughput at DBCT.

The Queensland Government has importantly also identified the Port of Hay Point as a priority port and aims to optimise the use of infrastructure at the port, including DBCT. This further supports the significance of the Terminal in light of the desirability, particularly from an environmental and ecologically sustainable development perspective, of continued development at existing strategic ports, rather than development of new ports.

As such, the User Group considers that criterion (c) is clearly satisfied in light of the significance of the size of the Terminal and its significance to the Queensland economy.

10 Criterion D – Promotion of the public interest

10.1 Interpretation of criterion (d)

This criterion, as recently revised, requires consideration of whether access (or increased access) on reasonable terms and conditions as a result of declaration would promote the public interest.

Section 76(5) QCA Act relevantly provides that, in assessing this criterion, the QCA and Minister must have regard to:

(a) The effect that declaring the service would have on investment in –

  (i) facilities; and

  (ii) markets that depend on access to the service

(b) the administrative and compliance costs that would be incurred by the provider of the service if the service were declared

(c) any other matter the QCA or Minister considers relevant.

In relation to the reference to other matters that are considered relevance, while there are less specific public interest factors noted that in the previous section 76(3) QCA Act, the explanatory notes to the 2018 QCA Amendment Act confirm that:

> *'While the new section 76(5) simplifies the range of matters the Authority and the Minister must have regard to when assessing the public interest criterion, under the new subsection 5(d) the Authority or the Minister can still have regard to any of the matters that were previously listed in the existing section 76(3), if considered relevant'.*

That is consistent with the High Court's reasoning at paragraph [42] in *The Pilbara Infrastructure Pty Ltd v Australian Competition Tribunal* [2012] HCA 36 the public interest criterion involves a very wide ranging assessment:

> *'the range of matters to which the NCC, and more particularly, the Minister may have regard when considering [the public interest criterion] is very wide indeed'*

The DBCT User Group acknowledges as correct the QCA staff's view in the Staff Issues Paper that criterion (d) is an additional positive criterion that the QCA must be satisfied of.

The Competition Policy Review Bill EM relevantly notes that:

(a) the criteria mean that 'a decision maker must be satisfied that declaration is likely to generate overall gains in the community' (at [12.37]); and

(b) this criterion does not call into question the results of the other criterion – it accepts the results derived from the application of those subsections, but it inquires whether, on balance, declaration of the service would promote the public interest (at [12.40])

10.2 Promotion of the public interest – facilitation of investment

The DBCT User Group considers that there have been numerous benefits provided by the existing declaration which promote the public interest both in respect of investment in facilities and investment in markets that depend upon access to the service.

That has in fact previously been recognised by Brookfield Infrastructure Partners, ultimate owner of DBCTM, which noted in its submission supporting certification of the DBCT Access Regime:

> *10. The DBCT Access Regime has been in place since 2004 and is open, transparent and well understood by DBCT stakeholders –*

access holders, access seekers, terminal managers and terminal owners.

11. BIP considers that the DBCT Access Regime has, in general, worked well and to the benefit of all stakeholders. Most importantly, this has been reflected in an increase in the capacity of the terminal of around 52% per cent since the 2006 Access Undertaking was approved. The owners have invested more than AU $1.4 billion in the staged expansion of the terminal in response to the growth in demand for coal from the region.

…

14. The 2010 Access Undertaking and the DBCT Access Regime provides a stable, well understand regulatory framework, which provides the certainty required to facilitate further expansion of the terminal as it becomes necessary.

(a) Investment in facilities / markets that depend on access to the service

In assessing the impact of declaration, it is critical to appreciate the nature of the protections the declaration (via the access undertaking) has provided.

Those protections include:

(i) a transparent queue providing all access seekers (no matter what size a fair and reasonable opportunity to obtain access);

(ii) standard reasonable terms and conditions (again which apply equally to all access seekers);

(iii) efficient pricing (rather than the monopoly and discriminatory pricing that DBCTM would otherwise be incentivised to apply);

(iv) a certain pricing methodology – such that there is long term certainty about how the pricing will be calculated;

(v) an evergreen renewal option which provides certainty that capacity will be available for the life of a mine;

(vi) obligations to expand where there is sufficient demand;

(vii) ringfencing protections – designed to ensure that there is no favouritism of related parties or discrimination against non-related parties, thereby preserving competition in related markets;

(viii) terminal regulations ensuring there is not operational discrimination

The outcomes of those provisions have facilitated investment across the coal industry, rail access and rail haulage industry, and in other related markets as set out below.

(b) **Facilitates investment in the coal industry:**

The protections provided for by the access undertaking as a result of declaration facilitates investment in coal projects in the Goonyella by:

(i) reducing barriers to entry – particularly for smaller or new producers who would hold a comparatively small bargaining position which would otherwise inhibit their ability to negotiate or obtain access on reasonable terms in the absence of the undertaking protection;

(ii) creating certainty and transparency to facilitate the long-term investments required in coal exploration and production including assurance against the necessary significant sunk costs in pursuing those ventures; and

(iii) as has recently occurred, allowing the contracting of access by new, expanding or reopened mines (such as Isaac Plains). It is likely to continue to assist those opening new or temporarily closed mines in the Goonyella system (such as Terracom reopening the Blair Athol mine, New Hope developing Burton/Lenton and Pembroke Resources developing Olive Downs).

(c) **Facilitates investment in the rail access and rail haulage industry:**

The most direct result of it being attractive to invest in coal projects in the Goonyella system, is that it promotes and facilitates investments in below rail expansions and above rail haulage to service coal projects in the Goonyella system.

The open access regime which operates at DBCT as a result of declaration, is part of the reason the Goonyella system continues to be the highest volume system in the Aurizon Network central Queensland coal region.

(d) **Facilitates investment in other related markets**

That investment in coal development also drives investments in other related markets for mining services and mining inputs;

(e) Facilitates investment in the DBCT facility itself

the DBCT User Group considers that the declaration has in fact promoted investment in the facility itself – as demonstrated by the expansions that have occurred since the initial declaration of the terminal services as shown below:

Phase	Capacity (Mtpa)	Year	
Initial terminal	14.55	1983	In 18 years pre-declaration: 1) 5 expansions, 2) total of 23 Mtpa of capacity added
Stage 1	22.55	1990	
Stage 2	22.55	1995	
Stage 2A	28.55	1997	
Stage 3	33.55	1999	
Stage 4	37.55	1999	
Stage 5	45.50	2002	In 17 years since declaration: 1) 3 expansions; 2) total of 47.45 Mtpa of capacity added
Stage 6	54.50	2003	
7X	85.00	2009	

In other words, in approximately the same period, DBCT has expanded twice as much with the declaration in place.

That is not particularly surprising, given that the following features of the access undertaking promote and facilitate investment in expansion of DBCT:

(i) the take or pay and long term nature of the standard access terms (which assists in underwriting any proposed expansion);

(ii) the security which is permitted under the standard access terms; and

(iii) the pricing methodology (including socialisation) used in the undertaking has effectively made DBCTM completely immune from:

(A) financial difficulties of any individual user (which in the absence of declaration would provide a commercial disincentive to invest, particularly in an expansion to provide access to a user of lesser financial substance); and

(B) the volatile coal price (which in the absence of declaration would provide a commercial disincentive to invest that is actually removed through regulation).

One only needs to contrast DBCTM's position with that of WICET (where individual users being placed into administration, receivership or liquidation dramatically increased the charges to other users) and those faced by miners in the coal price environment a few years ago where a number of producers shut mines or placed mines on care and maintenance due to financial pressures. By contract, the declaration and regulatory arrangements have resulted in DBCTM being immune to both the coal price and the financial stability of its customers.

10.3 Environmental Benefits

(a) Ecologically sustainable development:

Open access delivered by declaration will result in a larger single terminal instead of multiple smaller terminals, which will be more ecologically sustainable (due to involving less need for dredging, and confining the areas of the coastline which have been developed and through which shipping occurs).

This is a critical factor when considering that the Port of Hay Point is located within the Great Barrier Reef World Heritage Area and is one of the identified priority ports under the Reef 2050 Long-Term Sustainability Plan. That plan and the *Sustainable Ports Development Act 2015* (Qld) and the decision to prohibit major capital dredging in Great Barrier Reef World Heritage Area, mean that the importance of DBCT remaining open access cannot be understated.

As both the Queensland and Federal governments have made commitments to the World Heritage Committee to ensure marine preservation and protection of the Great Barrier Reef (which is being implemented through a plethora of public policy and legislative measures), the importance of sustainable use of, and efficient investment in, the Terminal (as produced by the existing regulatory arrangements) is unequivocal.

(b) **Rehabilitation funding**

Specific amounts have been identified in the QCA approved tariffs for contribution to environmental rehabilitation to ensure that future rehabilitation and restoration work is fully funded.

Again, this is important in ensuring protection of the environment at the end of DBCT's useful life and ensuring the State does not have to bear economic responsibility for funding the rehabilitation works.

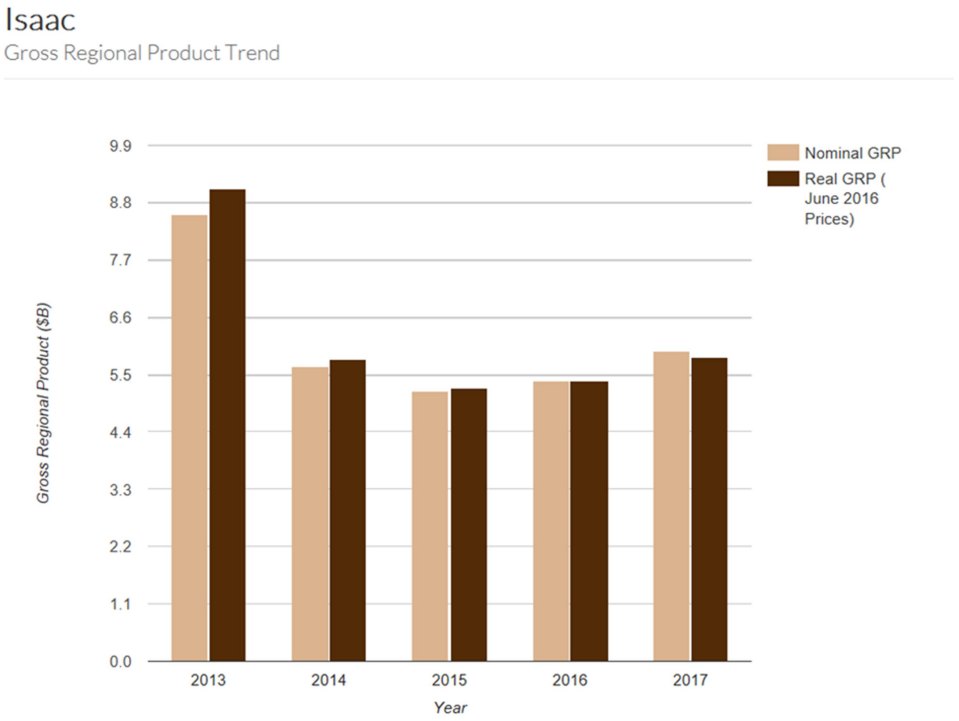
10.4 Other Public Benefits

(a) **Wider economic benefits**

The investment that declaration promotes in coal production, rail access, rail haulage and other relates markets produces greater employment, economic growth, indirect economic

benefits to regional communities. For example, the 22 per cent surge in property prices in Moranbah – a key Goonyella mining town – over the past 12 months.[34]

The *Australian Financial Review* also reported property price growth in other Goonyella mining towns such as Dysart, Clermont, Nebo and Coppabella (all in the Isaac Regional Council catchment), stating that the surge was attributable to 'the upturn in the coal price and renewed activity in the resources sector'. Isaac Regional Council illustrates the spread of this growth across Gross Regional Product (GRP) for the period 2013 – 2017 which demonstrates steady growth from $5.234 billion Real GRP in 2015 to 5.836 billion in 2017.[35]



There are also benefits in key services industries, particularly in Brisbane.

(b) **Lower costs**

Declaration reduced tariffs from the level at which they would likely apply in the absence of declaration, which in turn has improved the viability of the Queensland coal industry and been important in allowing it to survive volatile coal prices (which only 12 months ago were significantly more depressed than the current price environment).

(c) **Higher government royalties:**

Declaration promotes increased royalties to the State through:

(i) increased incentives to invest in production of coal; and

(ii) reducing the deductions which would apply from coal royalty calculations (where coal export terminal costs are permitted deductions) due to the lower costs provided by declaration and QCA regulation.

Those higher royalties result in a stronger State budget which can be used to provide public and community services. In 2016-17, total general government sector revenue was

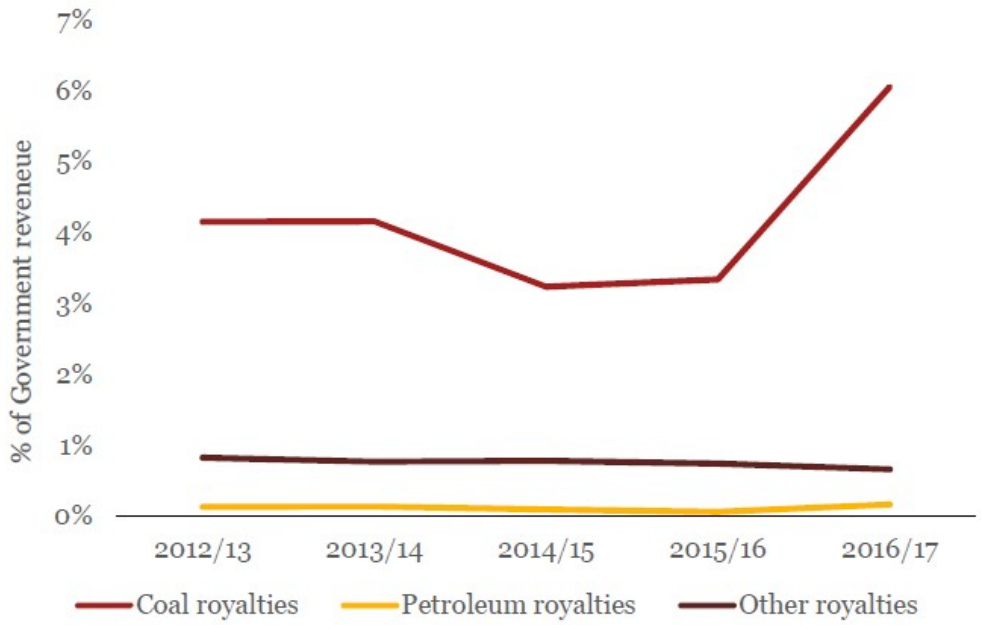
[34] http://www.afr.com/news/politics/queensland-mining-towns-reaping-the-benefits-of-coal-price-surge-20180213-h0vzzq

[35] http://www.economyprofile.com.au/isaac/trends/gross-regional-product

$5.439 billion (or 10.7%) higher than the previous financial year – which was noted in the Queensland Government Budget Strategy and Outlook 2017-18 as resulting from increased coal prices towards the end of 2016.[36]

As the PwC Report notes, coal royalties are critical to Queensland's budget:

Figure 10: Contribution to Queensland State budget, 2012/13 to 2016/17[89]



Source: compiled from Queensland Treasury budget papers for 2014/15 to 2017/18.

(d) **Efficiency benefits (and economies of scale)**

As discussed above in relation to criterion (b), DBCT is a natural monopoly asset where it is lower cost to meet demand from the terminal than through other facilities. Open access delivered by declaration has resulted in a larger single terminal with improved efficiency through economies of scale.

(e) **Regulatory certainty: Continuation of the declaration would be consistent with all expectations**

DBCT was privatised with the expectation that the terminal services would always be regulated (with the requirement for a review of the declaration being a more recent invention). The purchase price paid to the State by the original acquirer, and similarly, purchase prices have been paid by subsequent acquirers, investment decisions have been made in expansions, contracting decisions and investment decisions in mines have been made by users – all on the basis that regulation of the terminal services was a permanent position. The QCA has previously recognised the public interest in regulatory certainty – and continuing declaration would be consistent with that.

(f) **Continuation of the declaration will prevent windfall gains:**

If the declaration was to now expire that would create substantial windfall gains and losses to a range of entities – with:

[36] https://s3.budget.qld.gov.au/budget/papers/2/4-Revenue.pdf

(i) the infrastructure fund terminal owners benefiting (given that they acquired the terminal for a purchase price that reflected the terminal continuing to be declared and regulated); and

(ii) that benefit coming at the expense of:

(A) the State (who will receive lower coal royalties, face a State with reduced economic growth and who were only compensated on the original privatisation as if the terminal would continue to be regulated);

(B) the coal industry (which will pay higher costs for no improvement in service and have lower incentives to invest); and

(C) suppliers in related markets (who will suffer a fall in demand from the coal industry),

each of who would suffer windfall losses having made investments on the basis of the anticipated continuation of the declaration and would lose royalties)

10.5 Minimal (if any) public detriments costs arises from declaration

There are extremely minimal costs or public detriments that have arisen through declaration

(a) Administrative and compliance costs

While there is a degree of administrative and compliance costs, those costs (could not reasonably be of any real concern to DBCTM given that the costs are compensated for, and effectively paid by users as part of the overhead allowances that the QCA provides for DBCTM when setting charges under the access undertaking and the QCA Levy.

In any case, the DBCT User Group considers that those administrative and compliance costs are immaterial in the context of infrastructure of this scale and services of the volume provided. This is particularly so given that:

(i) the provisions of the DBCT access undertaking have been relatively settled, with incremental rather than wholesale changes occurring with each new access undertaking;

(ii) the nature of the asset provides a single common service to all users that utilise DBCT such that synergy and simplicity of regulation of operational matters is created; and

(iii) the operations and maintenance costs are not regulated – as, while the operator is user owned, it is accepted by all stakeholders (including the QCA) that the operator's interests are aligned with users in terms of striving for the appropriate balance between costs and service levels.

To the extent DBCTM argues these costs are material, it should be taken into account that DBCTM has brought most of the costs incurred in recent times upon itself by its insistence on lodging draft amending access undertakings to reargue points which could have been raised during the process to develop the access undertakings. For example, after the QCA's approval of the 2017 Access Undertaking in November 2016, DBCTM lodged a draft amending access undertaking just 7 ½ months later. Since that time, a further three draft amending access undertakings have been lodged, including in respect of one issue which is currently before the QCA for the third time.[37]

[37] DBCTM's most recent draft amending access undertaking (the ***Remediation Allowance DAAU***) seeks, for the third time since November 2016, a change in the tax treatment of the remediation allowance: http://www.qca.org.au/Ports/Access-to-Ports/DBCT-2015-Draft-Access-Undertaking/Variations/Tax-Treatment-of-Remediation-Allowance-DAAU

(b) Regulation does not provide a disincentive for DBCTM to invest

The DBCT User Group notes that it cannot be credibly argued by DBCTM that declaration has provided any material disincentive to undertake efficient investment in DBCT given that:

(i) DBCTM's access undertaking requires DBCTM to expand the terminal in certain circumstances where that is justified by demand;

(ii) the PSA DBCTM is a party to with the State contractually requires DBCTM to expand the terminal in certain circumstances where it is justified by demand;

(iii) the terminal has been expanded numerous times since regulation was introduced;

(iv) DBCTM has undertaken feasibility studies in relation to potential future expansions of the terminal;

(v) DBCTM's master plan identifies a series of expansions that would be pursued if justified by future demand;

(vi) the access undertaking has always provided DBCTM with an appropriate return on and of capital; and

(vii) the pricing methodology used in the undertaking has effectively made DBCTM completely immune from the volatile coal price (which in the absence of declaration would provide a commercial disincentive to invest that is actually removed through regulation).

As noted above in section 10.2(e), the clear majority of capacity expansion (by tonnage) has occurred during (and, the DBCT User Group considers, as a result of) declaration.

Again the DBCT User Group note Brookfield's own submissions during the certification process:

> *Brookfield [DBCTM's ultimate owner] submits that expansion of terminal infrastructure requires substantial and long term capital commitment and that facilities are typically built to last 50 years or longer. Brookfield argues that a certification period of 'at least ten years, preferably longer' is appropriate 'as* ***long term regulatory certainty is necessary to instil confidence that investments can be made within settings that remain predictable for the longer term'*** *(Brookfield submission, [17]).*

Both DBCTM's actions in investing in previous expansions and Brookfield's previous submissions, made it clear that the existing declaration actually provides strong incentives to invest in DBCT.

10.6 Declaration is preferable to other theoretical means of achieving access

The DBCT User Group understands that DBCTM is potentially considering, as part of seeking to have the declaration expire, proposing a contractual or other method of how access wold be provided in the future – in the absence of regulation.

The members of the DBCT User Group who have discussed DBCTM's proposals are prevented by confidentiality restraints from providing commentary on the particular issues with that proposal in this submission. Consequently, the DBCT User Group will have to provide further comments on DBCTM's proposal once it becomes public as part of their initial submission.

However, declaration is clearly preferable from a public interest perspective to any alternative methods of achieving such benefit as:

(a) it involves a truly independent decision about what is appropriate (both in relation to pricing and non-pricing issues);

(b) it provides absolute certainty to the parties as to the current term, and high levels of certainty to the parties about future treatment (particularly given that the QCA has recognised in multiple decisions that it should take into account the interest in regulatory certainty);

(c) yet, by the access undertaking being reviewed every 5 or so years, it does provide the flexibility to adjust the regulatory settings to a material change in circumstances – in a way that a contractual or other arrangement that is set now would not; and

(d) it does not involve the difficulty and challenges that resolving and enforcing the arrangements through arbitration or litigation would.

10.7 APCT: A case study

The issues noted in section 10.6 of this submission, are demonstrated by the continual issues that arise in APCT price reviews (which are not just cost and delay but in some ways more critically – not being the same decision maker each price review).

In particular:

(a) some parties are understood to still be in arbitration proceedings; and

(b) other parties have reached confidential non-transparent settlements on price (resulting in differential pricing between access holders),

even where there is detailed contractual principles to apply to determine the price, aptly demonstrates the difficult of, and complete lack of certainty provided by, any attempt at 'shadow-regulation' by contract.

The DBCT User Group also notes an issue that may not be evident to some – is that there is aspects of the pricing under the APCT User Agreements that are directly referable to the QCA decisions in respect of the pricing for the Service. That creates substantial uncertainty as to how those agreements will operate going forward. It may well be that the removal of the declaration frustrate the Abbot Point User Agreements, such that all APCT users would be exposed to APCT's monopolist pricing.

10.8 Conclusions on promoting the public interest

On any cost / benefit analysis or any other form of overall analysis it is clear that the public benefits overwhelmingly outweigh any public detriment which would arise from the declaration is continuing.

Accordingly it is clear that through a combination of those factors that access (or increased access) on reasonable terms and conditions as a result of declaration would promote the public interest such that criterion (d) is satisfied.

11 Next steps

The DBCT User Group is looking forward to respond to the submission provided by DBCTM.

It currently understands that the QCA is considering a 4 week period in which to do so.

That is extremely short, and dependent on the extent of the submissions provided by DBCTM, may be deeply inadequate.

Given the importance of the Service continuing to be declared, the DBCT User Group requests the QCA to give serious consideration to whether more time is warranted (particularly in the context of the DBCT Users also having respond to the Aurizon Network declaration review and having to respond to draft amending access undertakings strategically lodged by DBCTM during the declaration review submission period).

If the QCA has any further questions on this submission please do not hesitate to contact John Hedge of Allens on (07) 3334 3171 or Mark Smith (as chair of the DBCT User Group) on (07) 3333 5628.

Schedule 1 – Allens Advice

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29 May 2018

Dalrymple Bay Coal Terminal User Group
c/- Mark Smith, Chair
Director Infrastructure - Peabody
Dalrymple Bay Coal Terminal Pty Ltd
100 Melbourne Street
South Brisbane QLD 4101

Dear User Group

Advice in connection with DBCT Declaration Review

Background and context

DBCT Management Pty Limited (***DBCTM***) has entered into agreements with each of the current users of the Dalrymple Bay Coal Terminal (the ***Terminal***) (the ***User Agreements***).

While there are some minor variations between User Agreements (relating to issues like whether capacity is conditional on an expansion, parties being in a joint venture or other variations arising from changes to the standard access agreement which applied at the time of entry), each User Agreement is on materially the same terms for these purposes.

Each User Agreement includes references to both the Access Undertaking and the Queensland Competition Authority (***QCA***).

The handling of coal at the Terminal is currently a 'declared service' for the purpose of the *Queensland Competition Authority Act 1997* (Qld) (***QCA Act***). However, under section 250 of the QCA Act, the declaration in relation to the handling of coal at the Terminal expires on 8 September 2020.

The QCA Act provides for a process for review of whether the declaration should be further extended beyond that date. That process has recently commenced.

In that context, you have requested our advice as to:

(a) whether the current User Agreements between DBCTM and each of the users of the Terminal would be discharged due to the doctrine of frustration if the declaration under the QCA Act was to cease; and

(b) in relation to the declaration review criteria, how the threshold of 'promote a material increase in competition' in criterion (a) of the QCA Act would be interpreted.

These questions have been addressed respectively as Parts A and B of this advice.

Part A – Will the User Agreements be discharged based on the doctrine of frustration if the declaration ceased?

1 Doctrine of frustration

A contract is discharged by frustration where, subsequent to the formation of the contract, and without fault of either party, an unforeseen event renders the performance of a contract radically different from that intended by the parties.

What constitutes a frustrating event depends on the terms of the contract and the circumstances of each particular case. However, the event must have severe consequences and not merely alter the circumstances in which performance is called for, or make performance more onerous or costly. The onus to establish frustration is quite high and it is clear as a matter of principle that frustration is not lightly invoked by the courts.

If the contract expressly provides for how the risk or alleged frustrating event will be dealt with, the courts will give effect to the mechanisms provided for by the parties and the contract will not be frustrated.

In addition, if the 'frustrating' event was foreseen and the contract contains no provision covering the event, it will generally be inferred that the parties agreed to bear the risk of the occurrence such that the contract will not be frustrated (and the 'losses will fall where they may'). However, a fairly strict standard of foreseeability applies to exclude frustration on that basis; the parties must be found to have foreseen the occurrence of the event as a serious possibility.

2 The services ceasing to be declared is not a 'frustrating event' – the issue is the absence of an undertaking

It is worth noting at the outset that, it is not the declared status that is referenced in the User Agreements, but the QCA and an approved access undertaking.

However, as a result of the definition of Terminating Date in the current DBCT access undertaking, that undertaking will immediately terminate if the DBCT service ceases to be declared.

It is theoretically possible for the DBCT to be subject to an access undertaking and QCA regulation in the absence of declaration as s 136(2) of the QCA Act permits DBCTM to submit a voluntary undertaking, despite not being a declared service.

If that was to occur, in such a way that there was no gap between the existing access undertaking terminating and the new access undertaking, then it would be absolutely clear that the User Agreements would not be frustrated, as all of the references to the Access Undertaking and QCA would continue to operate as normal.

However, there remains an extremely high risk that that would not occur, either because:

(a) DBCTM does not lodge a draft access undertaking (noting that without declaration the QCA would have ceased to have the power to compel them to do so);

(b) DBCTM does lodge a draft access undertaking but withdraws it before it is approved by the QCA;

(c) DBCTM does lodge a draft access undertaking, but in insufficient time to have it approved by the QCA before the declaration expires;

(d) DBCTM does lodge a draft access undertaking, but it is in terms which the QCA considers are not appropriate so it is not approved by the QCA.

We note that section 136A gives the QCA the power to compel an entity that has submitted a voluntary draft access undertaking to resubmit where it is not approved and the QCA has previously

rejected a voluntary draft access undertaking by that party. However, we envisage DBCTM would simply not resubmit two voluntary draft access undertakings so as to put itself in the position where it could be so compelled.

On any view, in the event of the declaration ceasing there would be highly likely to be a gap between expiry of the current access undertaking and any new undertaking and a real likelihood of there being no access undertaking on a permanent basis.

The analysis in this advice is therefore principally concerned with the circumstances of whether the User Agreements would be frustrated in the event of there being no voluntary access undertaking in place.

3 Application to User Agreement

3.1 The argument for frustration

An entity asserting the User Agreements were frustrated would need to assert that performance was rendered impossible because of the unforeseen event of there no longer being an Access Undertaking and/or the QCA no longer being empowered or willing to make certain decisions in respect of the services, making numerous clauses of the User Agreement unworkable.

3.2 Foreseeability

As the expiry date of the declaration was enshrined in the QCA Act in September 2010, there is a question as to whether it was foreseeable for User Agreements entered after this time that the declaration would cease. However, that question is complicated by the fact that while it was known the review would occur from that point onwards, the criteria under which the review will now occur are different to those that existed in September 2010, and the criteria changes were not foreseeable (at least prior to the government's acceptance of the Harper Review recommendations in relation to certain changes to the access criteria). There would also be a question as to whether individual contracting parties truly understood the prospects of the declaration not being extended until more recently.

In any case, given the contractual requirements of the PSA, we consider it would be very difficult to establish that it was foreseeable that an access undertaking would not exist (even for those agreements which were entered at a time when it might be argued that the review of the declaration was foreseeable).

Of more difficulty to the argument for frustration is the provisions of the User Agreements which expressly envisage the potential for there being no access undertaking in place, particularly in relation to determination of access charges, as noted below.

3.3 Pricing

Pricing for a service is crucial and, if it is impossible to determine the pricing to apply it is likely the User Agreements would be frustrated (or unenforceable due to uncertainty).

The access charges payable by Users are largely outlined in clause 4 of the User Agreement. While clause 4 on its face does not refer to the Access Undertaking or any determinations or approvals by the QCA, many of the definitions used in Clause 4 are defined to have the meaning given in the Access Undertaking (e.g. Capital Charge) or by reference to Schedule 2 (e.g. Terminal Infrastructure Charge).

The handling charges (HCF and HCV) are not an issue as they are not dependent on the Access Undertaking or QCA decisions – but instead refer to actual costs and amounts which DBCTM is to reimburse the operator. However, the position in respect of Capital Charges is more complicated.

Schedule 2 which defines how the Terminal Infrastructure Charge is calculated involves extensive reference to decisions of the QCA (e.g. the Annual Revenue Requirement) and terms defined by reference to the Access Undertaking (e.g. the Aggregate Reference Tonnage).

On a review of that schedule alone, it is easy to conclude that pricing becomes impossible without a QCA determined revenue cap in particular.

However, clause 7.2 expressly envisages that:

(a) a review of 'all charges under this Agreement and the method of calculating, paying and reconciling them (including the terms of Schedule 2) and any consequential changes in drafting of provisions' will occur, effective on 'each Agreement Revision Date';

(b) that review may have regard to: the 'terms of the Access Undertaking *(if any)*' and the 'relevant Reference Tariff *(if any)*'; and

(c) the changes to be made through the review is to be resolved by agreement or, failing agreement, by arbitration – relevantly providing that *'if the QCA is unwilling or unable to act'* the arbitration will be handled by an arbitrator that is agreed or in default of agreement by an arbitrator selected by the Queensland Chapter of the Institute of Arbitrators and Mediators, Australia.

The 'Agreement Revision Date' is in turn defined to be:

(a) the date of commencement of each Access Undertaking for the Terminal after the first Access Undertaking;

(b) the date a Price Ruling is made that a Current Expansion will be a Differentiated Expansion Component under Section 5.12 of the Access Undertaking; and

(c) *if an Access Undertaking ceases to be relevant to the Terminal then the date 5 years after the immediately previous Agreement Revision Date*.

We consider it is clear from that drafting (our emphasis added above) that:

(a) clause 7.2 and the related definition of Agreement Revision Date expressly contemplate the situation of there being no access undertaking in place; and

(b) clause 7.2 provides a clear mechanism for the revision of the charges (through independent arbitration) in the absence of there being an access undertaking.

In that scenario we consider it is very difficult to see how the lack of an Access Undertaking can be argued to make performance or calculation of pricing impossible.

There are of course going to be numerous complexities or uncertainties about how such an arbitrator would determine pricing. Those are partly resolved by the mandatory factors the arbitrator must have regard to as set out in clause 7.2(e) of the User Agreement.

Issues like 'Review Events' and 'Increments' which are components of the current regulated pricing models would either completely cease to be relevant or would need to be provided for in some form in the arbitrator's orders.

However, we consider that those complexities and uncertainties would clearly be insufficient for the User Agreements to be frustrated on the basis of the impacts on calculation of pricing (as a court will consider the parties clearly contemplated the lack of an undertaking and determined that commercial arbitration was the best way to resolve the pricing review where those circumstances occurred).

3.4 Non-pricing issues – amendments to Terminal Regulations

Clause 3.6 of the User Agreements in respect of amendments to Terminal Regulations is the other issue in respect of which the Access Undertaking and QCA are extensively referred to.

Clause 3.6 provides for:

(a) amendments to the Terminal Regulations not being implemented unless DBCTM has conducted reasonable consultation with Access Holders, Access Seekers, Expansion Parties and Rail Operators in accordance with the Access Undertaking;

(b) amendments to the Terminal Regulations needing to be consistent with the Access Undertaking; and

(c) objections to amendments being able to be raised with and determined by the QCA.

We consider that either:

(a) these provisions would be interpreted as referring to the access undertaking as it previously existed (i.e. the last approved access undertaking) so that they mostly remained workable; or

(b) issues with amending the Terminal Regulations would not be considered something that 'rendered the performance of the contract radically different' so as to frustrate the User Agreements (noting that any issues with there no longer being an Access Undertaking do not actually undermine the application of the Terminal Regulations as they currently exist).

To the extent that causes practical issues, we consider a court would consider the parties are likely to have accepted that risk given that the User Agreements do not expressly deal with this issue, but the pricing provisions demonstrate the parties clearly foresaw the potential for there to be no Access Undertaking at some point during the term of the User Agreement.

3.5 Other non-pricing issues

The Access Undertaking and QCA are referenced in a number of other areas within the User Agreements.

For the reasons set out below, we do not consider any of them would result in the User Agreements being discharged for frustration.

We also note for completeness that the definition of Access Undertaking (shown below):

> 'Access undertaking' means the access undertaking submitted by DBCT Management from time to time relating to provision of the Services by it, and at the commencement of this Agreement means the access undertaking approved by the QCA on [insert date].

could leave a court to determine that for the purposes of provisions with ongoing operation (without requiring future QCA decisions) that where a reference to Access Undertaking appears in the User Agreement it should be interpreted as being the last approved Access Undertaking. That is an interpretation that is open on the literal wording of that definition.

Even if that interpretation was not adopted, in summary, our view is that while the User Agreement refers to and relies upon the Access Undertaking and regulation by the QCA for a number of non-pricing issues, they are incidental to the purpose and performance of the contract such that the absence of an Access Undertaking will not render performance under the contract impossible or radically different, and will therefore not result in discharge of the User Agreements by frustration.

User Agreements not limiting provisions of Undertaking (clause 10.1, 11.1(d))	Provisions which provide that the User Agreement does not limit rights or provisions under the Access Undertaking do not impact on the operation of the User Agreement if they cease to have any relevance.
Long Term Delays – reinstatement and expansion obligations	QCA agreement was required for DBCTM to not be obliged to reinstate damage to the Terminal. The User Agreements will continue to operate without DBCTM having the benefit of this exception, which has extremely limited prospects of becoming potentially enlivened.

(clause 13.6)	The Access Undertaking is referred to in terms of when and how DBCTM must undertake an expansion in the event of sustained on-going long term delays resulting in capacity of the Terminal being less than 95% of the Aggregate Annual Contract Tonnage. It is more difficult to resolve how this provision would be interpreted and whether it would now be too uncertain to be enforceable. However, we do not consider this issue in one paragraph which only arises in an extremely unlikely circumstances would lead to performance under the contract being considered radically different.
Ability to refer disputes to the QCA (clause 15.6, 12.3(d), 11.3(d))	The User Agreements will continue to operate without these clauses – in particular clause 15.3 effectively provides for arbitration (where agreed) or litigation as an ultimate means to resolve disputes if they cannot be resolved by agreement. While clause 11.3(d) expressly envisages QCA arbitration it recognises that the QCA may not consent to act as arbitrator and in that event the general dispute resolution procedures would apply.
DBCTM to negotiate amendments to reflect term of any new access undertaking should Dalrymple Bay Coal Terminal Pty Ltd cease to be operator (clause 16.1(c))	The User Agreements will continue to operate without DBCTM having this obligation because there is no such new access undertaking.
Differentiation of access charges permitted where permitted or required by access undertaking (clause 16.1(d))	The User Agreements will continue to operate without this clause – just that differential pricing will be required to reflect differences in costs or risks to DBCTM of providing the services (removing the potential for any permitted departures provided via the Access Undertaking).
Definitions	Numerous definitions are stated to have the meaning given in the Access Undertaking. Many of those relate to capital charges such that they will be resolved by a review under clause 7.2 (which is likely to make them redundant even if it does not technically amend or delete them). For other terms which were really not dependent on regulation for definition, but referred to the Access Undertaking as a matter of convenience, we consider a court would either give these terms the meaning they had under the last approved access undertaking or give them their ordinary meaning such that the contract could remain on foot.
Schedule 3 – Requirement for the service to be carried out in accordance with the Access Undertaking	The standard of services will continue to be specified in numerous other ways under the User Agreement (see the references to the requirements for 'due skill, care and diligence and Good Operating and Maintenance Practice). The potential non-operation of the reference to the non-discrimination obligations in the Access Undertaking is clearly unfortunate. However, there are provisions of the User Agreement which sufficiently prescribe how the services are to be provided such that the User Agreements will continue to operate without these references.

3.6 Conclusion

Based on the analysis above, we consider that:

(a) a non-extension or revocation of the declaration of DBCTM's coal handling services; or

(b) there no longer being an approved access undertaking for those services,

will not result in any of the User Agreements being frustrated.

That is not to say that those issues would not produce changes to how the User Agreements operate. However, given the review mechanism in relation to pricing (which clearly envisages the potential for there being no undertaking and resolves how capital charges are to be determined in that scenario – albeit with reduced certainty for users) and the largely incidental nature of other references to the Access Undertaking or QCA, any future absence of an undertaking or QCA regulation will not be found to have met the pre-requisites for discharge by frustration of:

(a) being unforeseen; and

(b) rending performance radically different or impossible.

Part B – Interpretation of the threshold of 'promote a material increase in competition' under criterion (a)

1 The Meaning of 'Promote a Material Increase in Competition'

There are two important aspects of the phrase 'promote a material increase in competition' as it is used in criterion (a), namely:

(a) how is the requirement to 'promote an increase in competition' interpreted; and

(b) what is the threshold imposed by the requirement that the increase in competition be material.

To address those issues it is important to consider the previous reform recommendations, Tribunal and judicial decisions applying that wording and legislative reforms to criterion (a).

2 Materiality

Initially criterion (a) referred to a requirement to 'promote competition' without any materiality threshold.

That was changed by the *Trade Practices Amendment (National Access Regime) Act 2006* (Cth) which inserted the requirement to promote 'a material increase' in competition.

That change was described in the explanatory memorandum (at paragraph 1.9 and 5.21) as follows (our emphasis added):

> *The Government has agreed to amend the 'promote competition' declaration criteria contained in paragraph 44G(2)(a),* ***to ensure that access declarations are only granted where the expected increase in competition in an upstream or downstream market is not trivial****.*
>
> *…*
>
> *Item 16 amends paragraph 44G(2)(a), to provide that the Council cannot recommend that a service be declared unless it is satisfied, inter alia, that access (or increased access) to the service would promote a material increase in competition in at least one market (whether or not in Australia), other than the market for the service. In responding to the Productivity Commission's report, the Government indicated that while the current declaration criteria (such as 'the national significance' test) preclude declaration where the relevant infrastructure and subsequent public benefits are not significant, this does not sufficiently address the situation where, irrespective of the significance of the infrastructure, declaration would only result in marginal increases in competition.* ***The change will ensure access declaration are only sought where increases in competition are not trivial.***

It was therefore clear that 'material' was merely intended to mean not 'trivial' or 'marginal'.

3 Has the materiality threshold changed as part of the recent changes to criterion (a)?

We consider it is absolutely clear that the recent changes to criterion (a) did not alter the materiality threshold which forms part of the criterion.

The reference to 'material increase' remains exactly the same. The only change in criterion (a) is that rather than 'access (or increased access)' being what is to promote a material increase in competition it is now 'access (or increased access) on reasonable terms and conditions as a result of declaration'.

It is also clear from the background to those amendments being made that there was no intention to change the interpretation of the materiality threshold.

The amendments to criterion (a) effectively originated in the recommendations of the Productivity Commission into the National Access Regime and the Harper Review.

During the consultation phase on the Productivity Commission's proposed amendments to the access criteria, the Productivity Commission received submissions on the interpretation of the promotion of competition aspect of criterion (a). Specifically, the submissions argued that the Productivity Commission's proposed changes (which suggested an increased focus on access on reasonable terms and conditions only) were not sufficient and that the words 'promote a material increase in competition' should be amended. The submissions acknowledged the existing meaning of a 'material' increase in competition was merely a 'not trivial' increase – a low threshold, and argued that the threshold ought to be increased to require a 'substantial' increase (see the Competition Policy Review Final Report, page 432).

The Harper Review Panel expressed concern that 'promotion of a material increase' sets a low threshold and whilst it ultimately supported the Productivity Commission's recommendation that criterion (a) should be expressly focused on the specific effect of declaration (rather than access per se) on promoting competition in dependent markets, it also recommended that the new criterion (a) require a 'substantial' increase in competition in a dependent market.

In particular, recommendation 42 provided that:

> '*criterion (a) should require that access on reasonable terms and conditions through declaration promote a substantial increase in competition in a dependent market that is nationally significant'.*

However, the Commonwealth government's response only adopted recommendation 42 in part, and in the response to recommendation 1 supported 'granting third party access to significant bottleneck infrastructure where it would promote a *material* increase in competition in dependent markets' – clearly indicating an intention to retain the lower threshold (Australian Government Response to the Competition Policy Review, 33-34).

The explanatory memorandum to the *Competition and Consumer Amendment (Competition Policy Review) Bill* contained no discussion of the materiality threshold. Similarly the explanatory notes to the bill introducing the QCA Act amendments to criterion (a) did not discuss the materiality threshold, and simply confirmed that it intended to align the criteria with the national access regime.

Consequently, we consider it is clear that it will be assumed by any court or the Tribunal that the intention was to retain the existing meaning of 'material' (as not trivial) in this context.

4 Promoting a material increase in competition

The National Competition Council (***NCC***) released its updated guide to declaration under the national access regime in April 2018 (the ***Guide***).

The Guide (at paragraph 3.23) describes the NCC's view that the promotion of a material increase in competition involves:

> *an improvement in the opportunities and environment for competition such that competitive outcomes are materially more likely to occur.*

This interpretation is consistent with the Australian Competition Tribunal's decision in *Re Virgin Blue Airlines Pty Ltd* [2005] ACompT 5, in which the Tribunal stated at [162] (our emphasis added):

> *In our view, we need to be satisfied that if the Airside Service is declared* ***there would be a significant, finite probability that an enhanced environment for***

> ***competition and greater opportunities for competitive behaviour – in a non-trivial sense*** *– would arise in the dependent market,*

And similarly:

> *The Tribunal does not consider that the notion of 'promoting' competition in a 44H(4)(a) requires it to be satisfied that there would be an advance in competition in the sense that competition would be increased. Rather, the Tribunal considers that the notion of 'promoting' competition in s 44H(4)(a) involves the idea of creating the conditions or environment for improving competition from what it would be otherwise. That is to say, the opportunities and environment for competition given declaration, will be better than they would be without declaration*

In reaching this decision, the Tribunal referred to submissions by Virgin Blue, which suggested that:

(a) the requirement that access or increased access *would* promote competition meant *realistically could* and was not to be interpreted as *will* promote competition; and

(b) that the degree of certainty required by the phrase 'would promote competition' was a *significant finite probability*, rather than such a consequence being m*ore probable than not*.[1]

This was also the position taken in *Duke Eastern Gas Pipeline* (2001) ATPR 41-821 at 43,061 where the Tribunal stated that:

> *The notion of promotion of competition involves a consideration that if the conditions or environment for improving competition are enhanced, then there is a likelihood of increased competition that is not trivial.*

There has not been any judicial consideration in any of the subsequent proceedings concerning criterion (a) which suggest that that interpretation has changed.

Rather in the Full Federal Court's decision in *Port of Newcastle Operations Pty Ltd v Australian Competition Tribunal* [2017] FCAFC 124 the court stated at paragraph 86 that:

> *The decision-maker is required to make a prediction or forecast of the conditions or environment for improving competition in a dependent market*

While that reasoning was not strictly critical, it demonstrates a clear view by the Full Federal Court that the threshold for what constitutes a promotion of a material increase in competition remains as described in the Sydney Airport proceedings by the Tribunal.

5 Conclusion

Based on the analysis above, we consider it is clear that the need to 'promote a material increase in competition' is interpreted as requiring:

(a) an enhanced environment for competition and greater opportunities for competitive behaviour than there would be otherwise; and

(b) the improvement in competition need merely be more than trivial or marginal.

[1] [2005] ACompT 5 at [160].

As always, if you have any queries please do not hesitate to contact us.

Yours sincerely

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Schedule 2 – Castalia Report

Dalrymple Bay Coal Terminal:

Economic Analysis of Declaration Criteria

Report to DBCT Users Group

May 2018

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1 Introduction

Castalia has been asked by the DBCT User Group to undertake an economic analysis of the extent to which the declared service of 'the handling of coal at the Dalrymple Bay Coal Terminal' meets criterion (a) for declaration under the Queensland Competition Authority Act 1997 (Qld) (QCA Act).

Criterion (a) (from section 76 of the QCA Act) states that:

> *Access (or increased access) to the service, on reasonable terms and conditions, as a result of a declaration of the service would promote a material increase in competition in at least one market (whether or not in Australia), other than the market for the service*

We have been advised that PricewaterhouseCoopers is separately undertaking an analysis of the extent to which the declared service meets the other three access criteria, which must be satisfied for declaration.

Report structure

This report is structured as follows:

- Section 2: Background and context
- Section 3: Criterion (a) a material increase in competition:
  - Defining a Relevant Market
  - The Tenement Market
  - The Secondary Capacity Trading Market

2 Context and Background

Dalrymple Bay Coal Terminal (DBCT) is Queensland's largest coal export terminal with a capacity of 85 million tonnes. It is the only common user terminal for mines in the Goonyella region.

2.1 Privatisation in 2001

DBCT was privatised in 2001 by long term lease (50 years plus 49 years) from the Queensland Government. At the time of privatisation coal handling services at DBCT were declared under the Queensland Competition Authority (QCA) Act—that is access, including both price and non-price terms and conditions, was regulated by the QCA.

As part of the transaction DBCT executed the Port Services Agreement (PSA) in favour of the Queensland Government in which DBCT undertook to ensure that the terminal should always be regulated by the QCA. The PSA requires DBCT to:

> *"use its best endeavours to ensure that an access undertaking is in force through the terminal lease term"*

Thus, the amount paid on privatisation reflected the context of a declared asset subject to price regulation.

Users of DBCT have thus had a legally enforceable right of access under the Access Undertakings in place on "reasonable" terms and conditions including price set by the QCA.

2.2 Process on Expiry of Declaration

The declaration is due to expire in September 2020 (s. 248 of the QCA Act). If the declaration is not renewed, then the current DBCT Access Undertaking which would normally expire in July 2021 would expire on the date DBCT ceases to be a 'declared service' under QCA Act.

In the period before expiry of that declaration, the QCA must conduct a review of the declaration under section 87A QCA Act. The QCA must recommend that the service be declared if the QCA is satisfied about all the access criteria.

The QCA must make that recommendation to the Minister between twelve to six months prior to the declaration expiry date—that is September 2019 at the earliest. Prior to making that recommendation the QCA must in accordance with the Act and good regulatory practice:

- Commence the review, for example through an issues paper
- Invite submissions from all stakeholders
- Publish a draft decision and invite submissions on that draft decision
- Make a final decision to the Minister

2.3 Access Criteria

The coal handling service provided at DBCT (the Service) is currently declared under Part 5 of the QCA Act (Queensland Access Regime). It provides a framework for access regulation over services provided by the declared facilities.

From September 2020, the Service will only be declared if the Minister is satisfied that DBCT meets each of the access criteria in the QCA Act.

The access criteria, which have been recently amended, as stated in section 76 of the QCA Act are:

> *(a) that access (or increased access) to the service, on reasonable terms and conditions, as a result of a declaration of the service would promote a material increase in competition in at least 1 market (whether or not in Australia), other than the market for the service; and*
>
> *(b) that the facility for the service could meet the total foreseeable demand in the market—*
>
> > *(i) over the period for which the service would be declared; and*
> >
> > *(ii) at the least cost compared to any 2 or more facilities (which could include the facility for the service);*
>
> *(c) that the facility for the service is significant, having regard to its size or its importance to the Queensland economy;*
>
> *(d) that access (or increased access) to the service, on reasonable terms and conditions, as a result of a declaration of the service would promote the public interest.*

For this report, we have been asked to consider from the economics perspective whether the Service satisfies criterion (a).

To do that we have focused on two markets where we consider that declaration of the service would promote a material increase in competition.

That is of course not to say there are no other dependent markets for which criterion (a) could also be satisfied, but for the purposes of criterion (a) it is sufficient to identify one market.

3 Material Increase in Competition

As noted above, criterion (a) is as follows:

> *(a) that access (or increased access) to the service, on reasonable terms and conditions, as a result of a declaration of the service would promote a material increase in competition in at least 1 market (whether or not in Australia), other than the market for the service*

In the scenario of the current declaration review, the QCA is placed in the unusual position of not being able to observe an existing unregulated market for the service and its impact on dependent markets (which would normally provide a good proxy for the likely future state of each dependent market without declaration) and compare that against a predicted likely state of each dependent market with declaration.

Rather the QCA can observe the existing regulated market for the service with declaration and its impact on dependent markets (as a good proxy for the likely future state of each dependent market with declaration) and is required to:

- predict the likely state of each dependent market if the declaration ceased; and
- determine whether there is a 'promotion of a material increase in competition in at least 1 market' which currently exists which would be lost without the declaration.

That requires identification of the relevant upstream and downstream market(s) and a determination of whether (to use the words of the Australian Competition Tribunal in the Sydney Airports decision):

> *'the opportunities and environment for competition given declaration, will be better than they would be without declaration'.*

One clear way of evidencing that is identifying a dependent market where DBCT's behaviour, in the absence of a declaration, would affect the competitive process and distort the outcomes of competition.

There are a number of components of such analysis:

- First, the boundaries of the upstream and downstream markets must be defined, and market effects must be analysed within those boundaries
- Second, we need to consider the effects of DBCT's behaviour with and without the declaration on the competitive process. *A priori*, there is likelihood that competition could be affected if the service provider is vertically integrated into upstream and downstream markets. In the absence of vertical integration, other factors need to be present to cause exercise of monopoly power in the absence of declaration to cause a decrease of competition. Of particular importance would be any factors that resulted in differences in treatment of participants in the market that may distort demand or supply from that which would exist where there was effective competition in the market.

To define a market, we apply the conventional hypothetical monopolist test—whether a small but significant non-transitory increase in price SSNIP would result in substitution. The purpose of the test is to identify the smallest market within which a hypothetical monopolist could profitably impose such a price increase. Market boundaries can be defined by reference to products/services and geographically and functionally.

Our analysis of the upstream and downstream markets shows that there is at least one upstream and one downstream market where the absence of declaration will have some effect on competition:

- The market for ***coal tenements*** for exploration and development of thermal and metallurgical coal resources within the 'Hay Point catchment area' (being a region proximate to the Goonyella rail corridor); and
- The market for trading of ***secondary capacity*** for coal loading services at DBCT.

In the remainder of this note, we:

- Set out the features that mean that DBCT's behaviour is likely to have a material effect on upstream and downstream markets
- Define each of the relevant dependent markets
- Detail the current level of competition in that market; and
- Show that, absent continued declaration, the level of competition would be materially decreased.

3.1 The Tenement Market

The tenements market has been conventionally identified as a key upstream market for port and other bottleneck specialised freight infrastructure facilities. The tenements market features prominently in the consideration of declaration of the Pilbara iron ore below rail services as well as in the declaration of harbour access services at the Port of Newcastle.

In this section, we consider whether the circumstances of individual participants in the tenements market upstream of DBCT are sufficiently different that DBCT's behaviour would have a material effect on competition.

Our analysis has four components:

- First, we consider whether pricing of the Service could have a material effect on the tenements market.
- Second, we consider the geographic extent of the tenements market. We confirm that the geographic boundary of the relevant market is the Hay Point catchment area, being that area in which the most economic and logical export port is the Port of Hay Point (for which the Goonyella rail corridor area provides a reasonable proxy). This particular geographic boundary has significant implications for competition in the market.
- Third, we consider whether the market covers all stages of tenement lifecycle, from development to production, or only some of the stages (although we consider criterion (a) is ultimately satisfied in respect of the tenements market on either conclusion).
- Finally, we analyse whether there are structural characteristics of commercial arrangements between DBCT and its users that create different market effects than could be observed in other tenement markets.

3.1.1 Materiality

With respect to the Port of Newcastle shipping channel proceedings, the NCC, ACT and Federal Court all found that channel charges would have no material impact on

competition in the export coal market, or any other market such as mining tenements and mining services because of two factors:

- the quantum of the charge (around A$0.50/tonne) relative to the total value of coal (currently around US$100/tonne); and
- the size of possible changes in relation to the overall volatility of coal prices (range from $75 to $100 over last twelve months).

Unlike Port of Newcastle Operations (PoN), which charged on average around $0.50/tonne of coal during the unconstrained period **prior** to the declaration, DBCT Management (DBCTM) charges around $5/tonne **subject** to the declaration.

Our analysis in 0 shows that DBCTM could profitably increase its charges to around $12/tonne. In effect, DBCTM could increase its prices to the point where it became economic for coal producers to rail coal to alternative ports. The actual pricing increase which would be pursued profitably by DBCTM is likely to be higher as our analysis is solely based on cost differentials of existing capacity, without having regard to issues like existing long term take or pay contracts, co-shipping requirements, and rail and port capacity constraints which practically impose substantial, but less easily quantifiable, constraints on substitution by coal producers.

In theory, the same argument was made in relation to the Port of Newcastle: as a bottleneck facility it also could profitably increase its prices until it captured most of the marginal rents available within its catchment area. However, in practice, the starting position with respect to prices matters. There must have been good commercial reasons why the Port of Newcastle maintained its charges at around $0.50/tonne in the absence of regulation. The 2015 catch-up change in prices which triggered the application for declaration amounted to 35 percent average increase. It is difficult to imagine commercial circumstances under which—in the absence of regulatory constraint—the Port of Newcastle would have increased its prices by an order of magnitude. An order of magnitude is the change that would be required to add $5/tonne to the average costs of the logistics chain.

By contrast, in the case of DBCT, a doubling of terminal charges would impose the same $5/tonne increase, out of the total logistics costs mine to port in the region of $15/tonne to $40/tonne. Such an increase—particularly if applied over a number of years—could be accomplished without a material quantity of existing DBCT users seeking to switch to other coal terminals. This is because it is unlikely that there is adequate alternate rail, loader and port capacity to facilitate switching away from DBCT except at the margins. In addition, there are substantial practical, physical and contractual impediments to switching. These include existing long-term contracts for rail haulage and coal loaders as well as physical factors such as re-configuration of balloon loops.

Moreover, even if the lack of alternate capacity and the practical, physical and contractual constraints did not exist, our modelling, discussed later in this submission (see Figure 3.2), shows that profitable, commercially viable, and relatively modest, price increases by DBCTM of up to 60 percent (from $5 to $8) would result in a material change throughput. Volume through DBCT would decline by 20 percent from around 65 million tonnes per year in 2016 to around 50 million tonnes but DBCT revenue would increase substantially.

3.1.2 Geographic market definition

We define the coal tenements market as the market for the supply and acquisition of rights to explore for or develop resources of coking coal, thermal coal or both in the "Hay Point catchment".

The "Hay Point catchment" is the area—generally in proximity to the Goonyella rail corridor—where efficient prices for coal loading result in the lowest logistics chain costs being via export utilising a coal terminal in the Port of Hay Point. That is Hay Point is the least cost option rather than Abbott Point or Gladstone. In Section 0 we show its indicative geographic boundaries.

To consider whether such a geographic market exists, it is important to consider how prices for tenements are formed. In particular, we need to ask whether prices for tenements are formed independently in different ports' (and more broadly, different supply chains') catchment areas.

The reason we ask this question is because of the frequently made argument that the market for mining tenements, such as coal tenements, has a wide geography. The essence of the argument is that the coal market is global, with an international price for the product. Hence, investors have a wide choice of where to locate their mining operation: they could be in Queensland or on Borneo and still supply the same market.

However, all tenements (if they are ultimately to be developed into mining operations) must be associated with particular supply chains. In acquiring a tenement, for example through a Government tender processes, buyers have control of the amount they bid. In developing their bids, they take into account the likely range of revenues and costs such as:

- The long run average coal price for the period of production
- The capital and operating costs of developing the mine and operating the mine. This of course is heavily influenced by the quality of the resource
- The cost of the logistics chain from mine to port and ship loading.

While there are significant uncertainties and probabilities associated with these ranges, prices for tenements with the same production cost (quality of resource) characteristics will systematically vary between different supply chain catchment areas.

To apply the conventional SSNIP logic, a decline in the cost of a logistics chain will lead to a rise in the prices of the tenements within its catchment areas, but this will not cause substitution: that is, investors will not flee to other catchment areas so that the increase in the price of tenements cannot be sustained.

The Hay Point Catchment

To establish the boundaries of the Hay Point catchment we have modelled the total cost of the mine to ship logistics chain for mines in the Bowen using the current prices of the various components of the chain. On Figure 3.1 we show the approximate area where the Port of Hay Point via either DBCT or the Hay Point loader for BMA mines, is the lowest cost logistics chain.

Figure 3.1: The Hay Point Catchment

The geographic boundaries are not absolute and will vary as costs vary and there are many physical, financial and contractual factors that determine the ultimate logistics chain choice. Of the approximately 30 mines in the catchment, more than two thirds use coal terminals at the Port of Hay Point. This is particularly evident at the boundaries of the Goonyella rail network with the Blackwater and Newlands systems. History also plays a part, prior to the GAPE project in 2011, there was no access by mines on the Newlands rail network to Hay Point so mines that now have a lower cost path to DBCT still use Abbot Point because

of physical and long term contractual constraints. Similarly, there are mines that use Abbot Point which are within the 'Hay Point catchment' as historically they could not contract capacity on the Goonyella system and at DBCT due to capacity constraints and an unwillingness on the part of infrastructure providers to invest in expansions. However, the historical anomalies at the margin are not determinative as to the prospects of material levels of substitution going forward, particularly not in respect of development tenements in the current context of there being surplus capacity available at DBCT.

3.1.3 Tenement lifecycle

All mining operations go through a similar lifecycle: first, an area of land is identified as a potential as having a mining potential and hence worth exploring. Then, an exploration license is granted, exploration is undertaken, and (if the exploration work is successful) the resource is confirmed. Once the resource is confirmed, assuming the resource is economic to develop, a tenement enters into a development stage (including the holder making applications for mining/production rights). Finally, once all conditions are satisfied and the necessary investment is undertaken, a tenement becomes a mine and enters into the production phase of its lifecycle.

There are strong arguments to suggest that there is a clear distinction between the pre-production stages of the tenement life-cycle and its life as an operating mine. Operating mines have systematically different risk characteristics than pre-production tenements. The pricing is fundamentally different for operating mines relative to exploration and development tenements. There are buyers and sellers of tenements who do not carry out mining operations, and companies who explore tenements principally for the purpose of their exploitation by sale for a profit rather than mining. Hence, along the life-cycle dimension, a boundary is frequently drawn between a market for exploration and development tenements and a market for operating mines.

Consistent with that analysis, we have been informed that in the ACT's decision in the Pilbara proceedings the market was defined as being for exploration and development tenements.

The questions that will affect the value of a tenement will be:

- What is the quality of the reserve?
- What is the expected production cost?
- What is the quality and cost of the logistics chain available to the tenement?

The first two questions will be answered with increased precision as the tenement gets explored and developed, while the answer to the last question will not be affected by where on its lifecycle a tenement sits.

Below, for completeness, we have considered whether the understanding of competition effects of declaration depends on where the lifecycle line is drawn. We conclude, that regardless of whether the market is defined to include exploration and development tenements only, or if it includes all tenements on which mining-related activity takes place, the discriminatory effect of having two classes of owners—those with and without protected existing capacity contracts—would have the same detrimental effect on competition.

3.1.4 Unique characteristics of market arrangements

Compared to declaration, the absence of declaration removes two types of behavioural constraints:

- The constraint on the exercise of monopoly power to raise prices
- The constraint on vertical price and non-price discrimination.

The standard presumption in the economics literature is that a vertically integrated monopolist may have both an incentive and the ability to discriminate in the upstream and downstream markets in order to advantage its own competitive businesses. By contrast, a vertically unbundled monopolist is generally expected to have an incentive to extract full monopoly rent in the horizontal market in which it operates, but to have no incentive to distort the upstream and downstream markets. For example, with respect to the Port of Newcastle, it was reasonable to expect that all users of the channel and berths, both current and potential, would be affected equally as PoN provides access on a non-discriminatory basis and does not require any forward contractual commitments.

By contrast, existing users of DBCT have entered into rolling long term contracts with 'evergreen' renewal rights (see clause 20 of the Standard Access Agreement) and absent declaration new users would need to negotiate terms and conditions of access.

These two differences mean that an undeclared DBCT service is materially more likely to have an impact on competition in upstream and downstream markets than an undeclared PoN channel service. As we explain later in the report, the absence of declaration would create two classes of tenement acquirers among potential DBCT users: those who hold existing capacity contracts with DBCT, and hence are somewhat protected by the arbitration provisions within those contracts for their duration, and those who are seeking new capacity contracts from an unconstrained monopolist. The resulting difference in pricing would have the same effect as would be expected from an unconstrained vertically integrated monopolist. In other words, long-term port use contracts can be seen as a form of vertical integration that protects some but not all access seekers.

In addition, we note there is a third class of future tenement acquirers in BMA/BHP affiliated entities, that, in the absence of declaration, would continue to have access to HPCT on the basis of efficient pricing and that are arguably currently on relatively equal footing in the tenements market to DBCT users. Through no action of their own, they, in the absence of declaration of the Service, will be placed in a different position due to continuing to have access on reasonable terms and conditions when other users may not.

3.2 Acquisition of tenement rights

Tenement rights are sought by both firms already present in the DBCT region and by new entrants. Firms seeking the rights range in size and business model from large multinational mining companies (BHP, Glencore) with a strong portfolio of existing tenements either being mined or developed through to materially smaller new entrants (Jellinbah, Baralaba, Stanmore, Pembroke) with a focus on exploration and mine development.

Tenement rights are available either:

- From the Government through processes such as competitive tenders or directly by undertaking mining exploration
- Merger and acquisition activity to acquire entities that currently hold such rights at all stages of the lifecycle from exploration, development and operating mines; or
- Direct purchase of the tenement rights from parties currently holding such rights.

3.2.1 Government Tender Applications

Box 3.1 sets out the high-level process for firms to apply for tenements through a competitive process.

Box 3.1: Competitive Tendering Process

Competitive tendering applies to petroleum and gas, coal and, where appropriate, mineral exploration. (Note: Most applications for mineral authorities are direct applications.)

Competitive tendering ensures Queensland's resources are responsibly managed by allocating exploration rights to companies that have the greatest exploration and development capacity for these resources. It also provides a fair and transparent process for awarding a preferred tenderer.

A rigorous process is in place to assess tender applications and select a preferred tenderer. The process and criteria are outlined in each call for tender document and typically include consideration of the applicants' financial and technical capabilities and their strategy for engaging with the community.

Note: Preferred tenderers will need to meet environmental and other approval requirements (e.g. land access and compensation) before the resource authority is granted.

Source: https://www.business.qld.gov.au/industries/invest/mining/exploration-incentives/competitive-tendering

3.2.2 Direct Applications

Firms may also acquire tenements directly from the Government through being granted a right to explore and develop a tenement through undertaking a specified program of exploration activity.

To apply for an area and type of resource applicants must:

- Demonstrate financial and technical capability to carry out and fund the exploration activities
- Detail your proposed development plans and work programs.
- Hold appropriate environmental authorities
- Comply with Native Title requirements
- Pay a security deposit and provide financial assurance
- Pay the rent for the first year

If a tenement is granted, the holder must comply with the requirements attached to the tenement as well as a range of general obligations. Authorities can be cancelled for non-compliance.

3.2.3 Mergers and Acquisitions

Firms can acquire mining tenement rights through acquisition of the corporate entity that holds the tenement. Mergers and acquisitions can involve tenements in all stages of the lifecycle.

A recent example is the Rio sale of the Hail Creek mine and Valeria exploration project:

> *"Anglo-Australian miner Rio Tinto has announced the sale of two Queensland coal assets to Glencore for $US1.7 billion ($2.2 billion) and confirmed that a separate process is underway for the sale of its remaining coal assets in Australia.*

The transaction, which remains subject to a range of regulatory approvals including approval from the Foreign Investment Review Board, marks the continuation of the Rio strategy of selling assets to strengthen its portfolio.

One of the coals assets is the Hail Creek coal mine in Queensland's northern Bowen Basin. In 2017 the mine produced 9.4 million tonnes of saleable coal, made up of 5.25 million tonnes of hard coking coal and 4.13 million tonnes of thermal coal. Rio has an 82 per cent interest in the Hail Creek mine.

The second asset Rio has agreed to sell to Glencore is a large-scale, undeveloped coal project located in the central Bowen Basin, known as Valeria. Rio will sell its entire 71.2 per cent interest in the Valeria project."[1]

In the same divestment process, Rio Tinto also divested its interest in the Winchester South exploration tenement to Whitehaven Coal.

In Table 3.1 we show the recent transactions of which we are aware and note that it is rare for DBCT capacity to be included in the sale, especially in circumstances where the vendor has a portfolio of operating mines.

Table 3.1: Recent Tenement Transactions

Date of announcement	Project	Purchaser	Vendor	DBCT capacity included in transaction?
July 2015	Wotonga (exploration project)	Stanmore	Peabody Energy Australia (Peabody)	No
July 2015	Isaac Plains (previously operating mine on care and maintenance at time of acquisition)	Stanmore	Vale / Sumitomo	Yes
May 2016	Olive Downs (exploration project)	Pembroke Resources	Peabody / CITIC	No
July 2016	Blair Athol (on care and maintenance)	TerraCom	Rio Tinto	No
August 2016	Foxleigh (operating mine)	Realm Resources / Middlemount South	Anglo American	Yes
December 2016	Broadlea (previously operating mine on care and maintenance at time of acquisition)	Fitzroy Australia Resources	Vale	Yes

[1] Sydney Morning Herald, March 20, 2018

	Carborough Downs (operating mine)			
September 2017	Lenton (exploration project)	Lenton Joint Venture (New Hope 90%)	Peabody	No
February 2018	Hillalong East (exploration project)	Rio Tinto Exploration and Cape Coal	Bowen Coking Coal	No
March 2018	Winchester South (exploration project)	Whitehaven	Rio Tinto	No
March 2018	Exploration rights 60km SE of Middlemount	Metroof Minerals (named as preferred developers for coal release)	Queensland Government	No
March 2018	Exploration rights 25km SE of Middlemount	Sojitz Coal (named as preferred developers for coal release)	Queensland Government	No
March 2018	Hail Creek (operating mine) Valeria (exploration project)	Glencore	Rio Tinto	Yes

3.2.4 Direct Purchase

Mining tenements rights are analogous to land titles and they can be bought and sold. To be effective the transfer must be registered with the Department of Minerals and Resources. There is an application process for transfers under which the Department that the transferee has the appropriate financial and technical expertise to meet the obligations under the lease. This essentially replicates the process when the tenement was first granted that we describe in Section 3.2.1.

3.2.5 Current Level of Competition in the Hay Point Tenement Market

The existing declaration and regulation of terms and conditions of access, including price, ensures that all users, both current and future users, have a legally enforceable right of access on reasonable terms and conditions (subject to capacity being available).

This has a direct bearing on the tenement market, as both new entrants interested in acquiring tenements through either a tender process, direct application, M&A activity or transfer of an existing tenement, and existing firms, have a clear, transparent and efficient process to seek access.

This is because the declaration has resulted in DBCT access undertakings that provide:

- a queuing regime such that access capacity is managed in an efficient manner (including notifying access seekers where it is possible for a new access seeker

who is ready to contract to 'leap frog' other access seekers that are not ready to contract);

- standard non-price terms and conditions of access—in effect a deemed contract that does not require negotiation
- regulated efficient pricing for the service (with a known and well-established methodology for calculating that efficient pricing);
- protections regarding a change away from the current user owned operator model (which provide protections in relation to efficiency of the Service, as the interests of the users and user owned operator are aligned); and
- obligations on DBCT to expand the terminal to meet demand and the terms and conditions under which such expanded access is provided.

The Act also requires that access seekers:

- negotiate in good faith
- make all reasonable efforts to try to satisfy the reasonable requirements of the access seeker; and
- do not prevent or hinder a user's access to the service—for example inefficient price discrimination

If the declaration is not renewed these protections and rights would be in jeopardy.

3.2.6 Competition in the Hay Point Tenement Market Absent Declaration

Absent declaration, DBCTM has a local monopoly for multi user coal loading services. In this section we show that the incentives provided by that monopoly coupled with the current contractual arrangements between DBCTM and existing users, will combine to have a material effect on competition in the tenement market.

DBCT has a Local Monopoly

DBCTM has an effective local monopoly for multi user coal loading services for existing and new mines in the Hay Point catchment where it is part of the lowest cost logistics chain as there are constraints on users switching to alternate ports. Figure 3.1shows that DBCT is the logical facility to serve mines on Goonyella Rail Network and, depending on assumptions and outlook on logistics chain costs, some parts of the north west Blackwater Rail Network. This is consistent with our geographic market definition shown in Section 3.1.2 .

There are contractual and practical barriers to switching between ports

There are three reasons why those mines that currently use DBCT cannot easily switch to alternate loaders at Gladstone (R G Tanna or WICET) or Abbot Point.

- Existing contractual commitments for below and above rail services to DBCT.

  The Aurizon rail network's Access Undertaking requires users of below rail services to enter into long term rolling contracts. Thus, switching to an alternate loader could occur only when existing contracts expire
- Lack of rail and loader capacity for alternate ports
- Physical constraints—balloon loops face the wrong direction etc

- Co-shipping requirements – where it is important for marketing reasons, and small mines or both for a project to export via DBCT where co-shipping with a much greater variety of other metallurgical coal is possible.

Even if all these contractual and physical constraints could be overcome, DBCT's location creates an ability for increased prices, where possible, to capture monopoly rents towards the point where alternative rail/loader/port options start to become viable—that is "what the market will bear".

In Appendix A we model for each mine currently using DBCT the overall cost from mine to ship for transport to each of the two alternative ports, based on publicly available cost data and actual 2016-17 exports. Our model uses the same information as the PwC analysis for criterion (b). The key differences are:

- The Castalia model assumes an unconstrained ability for existing mines to switch their current output to other logistics chains in response to increases in DBCT charges. We ignore contractual and physical limitations. The model uses actual 2016-17 production, actual rail distances and estimates of logistics chain costs based on current prices.
- The PwC model estimates the lowest cost of new coal loader capacity for additional tonnage that might arise in the Hay Point catchment. The additional coal is assumed to come from a midpoint location in the catchment. The model also uses the estimated capital and operating costs of the additional capacity.

The Castalia model does not estimate all substitution as it determines only the point at which substitution becomes economic—that is the highest point on the price/volume curve.

This is very different to the PwC model as it estimates the lowest cost of additional capacity taking into account both rail costs and the capital and operating costs of either new coal loaders (Dungeon Point) or capacity expansions of existing loaders.

We find that the average incremental rail cost (both above and below rail) for current DBCT users to the next lowest cost alternative is in the order of $12/tonne for their current production. This compares favourably to the PwC assumption of an incremental rail cost of $11/tonne for additional new production arising within the Hay Point catchment.

The results of our model in Figure 3.2 show that DBCT could increase its current charges in the order of 100% before existing alternative rail/loader/port options such as Gladstone are the lowest cost logistics chain.

Figure 3.2: DBCT Throughput and Revenue

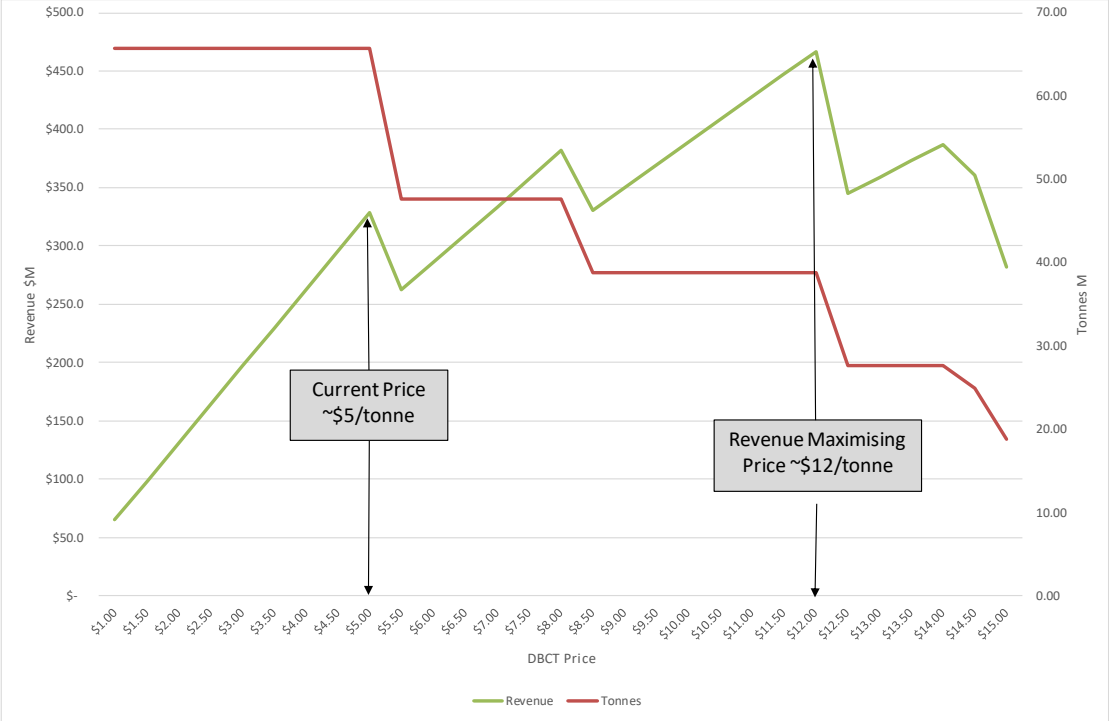

Figure 3.2 shows that DBCTM, as a rational profit maximising monopolist, has the opportunity and the incentivise to increase its charges to the point just before it becomes economic for users to switch to an alternative rail line, load and port export chain. Our analysis is conservative as it does not consider the contractual and practical impediments to mines switching to alternative export paths.

We note that the Wood Mackenzie February 2018 forecasts of DBCT throughput from existing mines shows tonnages maintained at current levels until at least 2025. This demonstrates the practical potential for DBCTM to increase prices and maximise revenues as much of this tonnage would be already contracted.

Existing users may be protected from price increases

Current users, through the long term rolling contracts they hold with DBCT, may be protected to some extent from unconstrained price increases. We have been advised that these contracts provide, that if an access undertaking is not on foot, prices will be set through a methodology set out in the contract (see clause 7.6 of the Standard User Agreement). This has some degree of commonality with the QCA's approach but is generally more favourable to DBCTM (and more uncertain given the limited guidance given in the Standard User Agreement provisions). The contracts also provide for binding arbitration if the users and DBCT cannot agree on the parameters of the methodology.

Thus, the impact of non-declaration on existing users' prices would have some limits but would still be higher than QCA determined prices. The price increases may not be at a level to incentivise existing users to switch to alternate loaders and ports.

In fact, the rights to an arbitrated price contained in their contracts would have substantial value (relative to future potential users without contracts) if declaration expires and is not renewed as existing users would be in a more favourable position than new users.

Existing users of DBCT—by definition—own production mines. Nevertheless, both existing users and potential future users of the DBCT service are clearly in the same market for coal tenements.

Corporate entities own coal resources in different stages of the lifecycle. For example, some production mines may be reaching a point where production may be declining as coal reserves are exhausted. To cite obvious examples, Rio Tinto contracted capacity for its Blair Athol mine, which was ultimately then used for its Clermont mine as Blair Athol's mine life wound down and Clermont's production ramped up. Owners of such production mines would likely be planning for such decline by exploring and developing other tenements that can over time utilise the contracted loader (and rail) capacity.

Hence, in the market for transactions in exploration and development tenements, bidders (particularly) who are existing users of DBCT with already contracted capacity will be participating in that market on terms that are materially different to potential bidders who do not hold such contracted capacity.

We conclude, that our analysis is not affected by whether production mines are in or out of the tenements market: in both cases, there are two classes of owners who would be affected in materially different ways by the absence of declaration.

New users would be materially affected

New entrants would not have the protection of existing contracts with DBCT and would be materially disadvantaged in two ways:

- Having to negotiate terms and conditions of access with a monopolist that can present a "take it or leave it" approach; and
- DBCT will be incentivised to maximise price and set terms and conditions in its favour up to the point where alternatives become viable.

BMA and Hay Point

BMA has its own dedicated coal loader at Hay Point (HPCT). We understand that BMA has incentives (arising from efficiencies in a single-user dedicated facility) to maintain the use of the HPCT as a single user facility.

However, we understand that BMA/BHP affiliated mines are DBCT users for some coal from such mines. To the extent of any incremental BMA/BHP affiliated coal production exported via DBCT, BMA/BHP affiliated mines are in the same position as other existing DBCT users. To the extent that capacity is available at HPCT, BMA/BHP affiliated users are, in the absence of declaration, through no action of their own, in an improved position relative to existing and future DBCT users given that they will continue to be assured of capacity at HPCT on reasonable terms and conditions.

3.2.7 DBCT Options Post Declaration

New entrant negotiations with DBCTM if the declaration is not renewed are likely to be substantially longer and more complex than the counterfactual of a legally binding right of access through an Access Undertaking approved by an independent regulator. This will be so regardless of DBCT's approach to providing access post declaration.

Post the expiry of the declaration DBCTM has several choices in the way it provides access. It can:

- **submit a Voluntary Access Undertaking (VAU).** This is a less certain process than under declaration as it puts control of submission in the hands of DBCTM.

DBCTM, for example, could submit an undertaking and withdraw after an unfavourable QCA draft decision (as there is serious doubt as to whether the reasonable endeavours obligation in the Port Services Agreement would require DBCTM to simply accept changes it considered to its commercial detriment or disadvantage). A VAU can be withdrawn at any time up to the time of the final QCA decision. This leads to delays, inefficiencies and uncertainties for users. This is not just a theoretical possibility but has occurred in the case of Queensland Rail (QR), Aurizon Network and the Australia Rail Track Corporation (ARTC) in the past.

In the case of QR, in the period 2013 to 2016 the VAU was submitted, withdrawn, extended, amended and finally approved.

In the case of the ARTC case, the re-submit option was used on several occasions to extend existing terms and conditions and to create pressure for users to support a VAU that was the subject of an unfavourable ACCC draft decision. That pressure was created through the uncertainty of the existing VAU expiring and the impact that would have on commercial agreements for access that linked to and referenced the VAU

- **execute a deed or other legal instrument** providing limited legal rights of access and potentially an arbitration process. We have been advised that such an arrangement has been suggested by DBCT in discussions with users. We have also been advised that there is doubt that such an arrangement would give a legal right to new users in all circumstances.

  Any access to arbitration would be only in terms of the legal arrangement set up by DBCTM.

  Again, such an arrangement would be markedly inferior to that of an approved Access Undertaking in terms of rights and certainty. It is also questionable whether it is an appropriate counterfactual to assume a position asserted in the context of the declaration review that has not been proposed previously.

- **do nothing** and provide services to existing users in terms of their contracts and enter "commercial" bilateral negotiations with potential new users.

We understand that the privately owned and unregulated Abbott Point coal loader provides access through a negotiation process with arbitration on parameters set by Abbot Point. We have been told that the process has been lengthy, and each renegotiation has proceeded to arbitration or resulted in confidential settlement which may be on different pricing for different users or both.

Further, the DBCT User Group considers there is an increased risk of oligopolistic behaviour between coal terminal owners if the declaration of the DBCT service was to cease. In particular, if there ceased to be a transparent regulated price available for DBCT, which currently prevents pricing coordination with other terminals it would be possible for terminals to strategically coordinate a rise to profit maximising prices for each terminal.

3.2.8 Result: A material reduction in competition

The combination of DBCT's location and DBCTM's existing contractual arrangements with its existing users will result in a material reduction in competition for tenements generally as there will be limits on the field of potential acquirers

Our hypothesis is that DBCT post expiry of declaration as a rational profit maximising entity will increase prices, where possible. For existing users, this will be mitigated by

evergreen contracts that require price arbitration if there is no regulated price. For new users they will have no right of access and no right to arbitration. That difference in position creates a material distortion in:

- the demand non-existing users may have for tenements in the Hay Point catchment; and
- the supply by existing users who will realise that the tenements are more valuable in their own portfolio than to non-existing users.

Price increases outside of incumbent contracts (and the uncertainty of the extent of those price increases) will make it more difficult for new entrants to bid for tenements as they will incur greater cost and risk to bring their mine developments to market and pay higher take or pay charges for any period of delay between any contracted access commencing and mine production commencing (such that they would be likely to achieve and attribute a lower value to the tenement). To be bankable new entrants will have to negotiate a legally binding right of access and a price with a monopoly that is incentivised to raise prices to "what the market will bear". That will be determined by a combination of both the cost of alternate logistics chains as well as the practical and physical constraints on those alternate chains such as rail, loader and port capacities and the costs of overcoming those constraints.

This will also have a differential impact on thermal coal projects compared to coking coal projects as increases in coal loader charges will have a significantly higher impact on the financial viability of the lower value thermal coal

For these reasons DBCT's behaviour in the absence of declaration will result in:

- Bids for new tenements will largely come from incumbents as they have access through existing contracts at arbitrated prices. Bids from new entrants will be at a significant disadvantage as they will not be able to compete on price and will have a more complex process to negotiate access.
- Both new entrants and incumbents will be less likely to bid for thermal only tenements:
  - Incumbents will be less inclined to "waste" their valuable arbitrated access rights on lower value commodities; and
  - New entrants, if they compete at all, will focus on high value coking coal projects that will be more viable given the likely DBCT price and development cost premium.

Consequently, we consider that declaration of the Service would promote a material increase in competition in the Hay Point catchment tenements market, such that criterion (a) would be satisfied.

3.3 The Secondary Capacity Market

Existing users of DBCT operate under long-term capacity contracts. During any period, their needs for port capacity may vary from their contracted capacity for a variety of reasons: production variability, vessel delays, customer flexibility and so on. At present, users are allowed by DBCTM to manage such short-term risks through a secondary market for the trading of contracted DBCT capacity. Users whose contracted capacity exceed their current needs can sell the excess to those whose contracted capacity is insufficient to meet their current needs. This can either occur through bilateral swaps between participants or through a DBCT related body corporate (Brookfield Port Capacity Pty Ltd) that acts as a broker.

Secondary trading is an efficient mechanism as it allows participants to increase or decrease capacity to meet operational demands. Participants can for example sell capacity when a mine reduces production to develop new pits or faces. They can also buy capacity to facilitate short term increases in capacity.

The market is material. Over the last three years 23 million tonnes of capacity has been traded (which is significant relative to DBCT's capacity of 85 million tonnes).

In the section we first define the boundaries of the secondary capacity market and then we consider the effects of DBCT's behaviour with and without the declaration on the competitive process.

Market Definition

The geographic boundaries of the market are self-evident in that the market allows DBCT users to manage peaks and troughs in their mine production. The market is limited to DBCT users as trades can only occur between mines that have a long-term contract with DBCT.

Those peaks and troughs arise through the interaction of mine geology with the multiplicity of operational activities needed in the production process. For an open cut mine, the strip ratio may vary from block to block, haul distances vary, conveyors need extending, blocks need to be dewatered and so on. An efficient mine operation requires a high degree of scheduling and co-ordination and it is manifestly inefficient to achieve a constant coal product output.

To meet the peaks and troughs, DBCT users have alternatives to the secondary trading market, but all are less efficient and higher cost. The alternatives are:

- Stockpile sufficient coal at the mine site such that dispatch from the mine was constant and thus smoothing the peaks and troughs of actual mine production. This is costly as it requires development of a suitable area for the stockpile, potential double handling of coal, and significant working capital to fund the value of the stockpile.

  Importantly the cost of working capital is highly variable being dependent on movements in both interest rates and coal prices. When both are favourable and, of course, expected to stay favourable for a period of time, then this may be an attractive option.

  This option may also not address all aspects of variability, if volume fluctuations were caused by events in the rail and shipping supply chains (as is currently the case due to Aurizon Network's actions in respect of maintenance).

- Contract for sufficient long-term capacity with DBCTM to meet peak production periods. This also incurs costs as DBCT capacity is "take or pay" and the mine will pay for DBCT coal loader services at the level of its peak capacity rather than average capacity as would be the case if the secondary market was available. This alternative is clearly uneconomic—if it were not so then there would not be any evidence of trading in the secondary capacity trading market; or

- It may be possible to trade physical coal volumes with other mines. This is complex and may not be possible as it would also require co-ordinating the contracting and swapping the above and below rail capacity, or at least the different costs given mines in separate locations. There would also be physical

and technical constraints such as coal quality. We suggest that this alternative may not be feasible.

The substitutes to the short-term market described above are all likely to be costlier, less efficient and less flexible than the secondary market trades.

This means that DBCT as a profit maximising monopolist could increases its prices without substitution taking place, for example by charging a fee to consent to bi-lateral trades or refusing to consent to assignments which are not conducted via Brookfield Port Capacity.

Impact of DBCT's Behaviour on Competition

The market is underpinned by the current Standard User Agreement and protections in the Access Undertaking, as it provides a right to trade capacity in this way and constrains DBCTM and Brookfield Port Capacity's behaviours.

In the absence of declaration, DBCT as a profit maximising monopolist would be incentivised to act in one of two ways:

- Charge a fee to consent to trades. This would be rational if the option of stockpiling at the mine site was the lowest cost alternative. DBCT could set the fee at the average cost of that alternative; or
- Refuse consent to trades. This would be rational if the cost of stockpiling was sufficiently large to make contracting for excess long-term capacity the lowest cost alternative or to drive users into doing business through Brookfield Port Capacity.

It is also plausible that DBCT could combine both options.

In both cases DBCT's behaviours will distort the market:

- The fee charged can only approximate the average cost of the alternative of stockpiling which varies between mines and between periods. This will result in some participants being active in the market at some periods of time. This will distort competition in the market as liquidity and the availability of counterparties is reduced.
- Refusing consent to trade will result in DBCT be able to sell more capacity than is needed by the market or result in Brookfield Port Capacity becoming a monopolist in the secondary capacity trading market. It will be able to sell up to the sum of all mines peak demand rather than the sum of all mines co-incident demand, potentially more than its nameplate capacity.

Since declaration facilitates the efficient operation of the secondary trading market, the without-declaration competition in the market would be materially reduced. This is because in the absence of declaration it would not be in the interests of DBCTM to facilitate the secondary trading market. In the absence of declaration, DBCTM would not be constrained in either refusing short term bilateral assignments or forcing such trades to use its brokerage service at a fee designed to extract all economic rents from the efficiencies afforded by secondary trading.

Consequently, we consider that declaration of the Service would promote a material increase in competition in the DBCT secondary capacity trading market, such that criterion (a) would be satisfied.

Appendix A: Coal Flows Model

To demonstrate the ability of DBCTM to unilaterally raise prices and reduce competition in the tenement market we have created a simple model that estimates, for each current DBCT user, the overall cost from mine to ship for transport to DBCT as well as each of the two alternative ports to determine the highest increase in DBCT price that will maximise DBCTM total revenue, and thus profitability (assuming, as we expect to be the case, a high proportion of fixed costs in the DBCT's operations).

Our model is the "least impact" that calculates the profit maximising price increase on the basis of total flexibility being available to users—that is it takes no account of the contractual and physical constraints such as rail, loader and port capacity. The model allocates coal flows of DBCT current users to the theoretically lowest cost path as we raise DBCTM charges above current levels to see at what point DBCT revenue is maximised. Our model is based on publicly available cost data and actual 2016-17 exports. It uses the same cost inputs as the PwC modelling that determines if DBCT can meet foreseeable demand—Criterion (b)—but applies the costs in a different methodology for a different purpose.

Our assumption will be that rail (both above and below rail) and port charges will remain at current levels as they are either regulated (Aurizon QCA, below rail charges, set competitively (above rail costs), or set by Government (port charges).

We calculate the costs and flows for the current port loader used by each mine, based on allocating all mines to a single loader, a simplification as some use multiple loaders, and allocating most BMA tonnages to its dedicated Hay Point loader. Our allocation closely matches actual flows in 2016-17.

We then calculate the cost and flows for the lowest cost alternative port loader, as DBCT prices increase and calculate the revenue at each price point.

Table A.1: DBCT Throughput and Revenue

DBCT Price $/tonne	DBCT Throughput Tonnes M	DBCT Revenue $M
$1.00	65.7	$ 65.7
$1.50	65.7	$ 98.5
$2.00	65.7	$ 131.3
$2.50	65.7	$ 164.2
$3.00	65.7	$ 197.0
$3.50	65.7	$ 229.8
$4.00	65.7	$ 262.6
$4.50	65.7	$ 295.5
$5.00	65.7	$ 328.3
$5.50	47.7	$ 262.3
$6.00	47.7	$ 286.2
$6.50	47.7	$ 310.0
$7.00	47.7	$ 333.9
$7.50	47.7	$ 357.7
$8.00	47.7	$ 381.6
$8.50	38.9	$ 330.3
$9.00	38.9	$ 349.7
$9.50	38.9	$ 369.1
$10.00	38.9	$ 388.6
$10.50	38.9	$ 408.0
$11.00	38.9	$ 427.4
$11.50	38.9	$ 446.9
$12.00	38.9	$ 466.3
$12.50	27.6	$ 345.3
$13.00	27.6	$ 359.1
$13.50	27.6	$ 372.9
$14.00	27.6	$ 386.7
$14.50	24.9	$ 360.6
$15.00	18.8	$ 282.1

It is notable that despite DBCT being lower cost under some conditions and potentially a shorter distance to port mines still use a notionally longer and higher cost path—this is because of the non-financial constraints detailed above, for example, prior to the GAPE project, commissioned in 2011, some mines only had access to Abbott Point and are still bound to Abbott Point through contractual commitments.

Our assumptions are for a "least impact" case in which we assume that DBCT users have total flexibility to move to an alternate loader and port without any physical or contractual constraints. Our assumptions are conservative as we also assume that the alternative loaders at Abbott Point and Gladstone have additional capacity available at current prices. This is certainly not the case – such that the profit maximising increase is likely to be even higher than modelled.

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Schedule 3 – PwC Report

Dalrymple Bay Coal Terminal User Group

2018 Access Declaration Review

Dalrymple Bay Coal Terminal

2018 Access Declaration Review

29 May 2018

pwc

Executive summary

Overview

The Dalrymple Bay Coal Terminal (DBCT) is located at the Port of Hay Point, approximately 38 kilometres from Mackay. DBCT services mines within the Bowen Basin in Queensland, and primarily handles metallurgical coal (coking and Pulverized Coal Injection (PCI) coal), with some smaller quantities of thermal coal. Coal is transported to DBCT by the Goonyella rail network, owned by the Aurizon Network.

The Terminal is managed by DBCT Management (DBCTM), under a long term lease from the Queensland Government. Terminal operations are provided by DBCT Pty Ltd (DBCT P/L). Users of the Terminal are members of the DBCT User Group, though the User Group has no formal status at the Port.

DBCT commenced operations in 1983 and was owned and operated by the Queensland Government. In 2001, DBCT was privatised by way of a long-term lease to DBCT Management (DBCTM). The lease has an initial term of 50 years, with the option to extend an additional 49 years. As a condition of privatisation, the Terminal was declared for the purposes of third party access for an initial term of ten years. Access to the coal handling services provided by DBCT is regulated under the *Queensland Competition Authority Act 1997* (the QCA Act), by the Queensland Competition Authority (QCA).

The QCA Act provides the key framework for the economic regulation of infrastructure in Queensland. Section 5 of the QCA Act provides the legal rights for negotiation regarding the terms of third party access to regulated infrastructure. In August 2017, the Queensland government has proposed changes to the QCA Act regarding the access criteria for declaration under section 76(2). Since DBCT's declaration is due to expire in September 2020, the QCA is required to recommend to the Minister whether the service ought to be declared for a further period, having regard to the amended declaration criteria.

The DBCT User Group engaged PricewaterhouseCoopers Consulting (Australia) Pty Limited (PwC) to assist in preparing a response to the QCA regarding the ongoing declaration of the Dalrymple Bay Coal Terminal, having regard to the amended QCA Act access criteria.

Approach and methodology

This report presents analysis undertaken by PwC to assess whether the coal handling services offered by DBCT satisfy access criteria (b), (c) and (d). We have addressed this by:

- assessing whether the DBCT facility is likely to be able to meet foreseeable demand, at least cost, compared to any combination of two or more alternative facilities, including by:
  - undertaking an assessment of current and likely future throughput at DBCT
  - assessing capacity expansion options to identify the least cost combination of facilities to service foreseeable demand for coal handling services at DBCT
- assessing the size and significance of the DBCT facility to the Queensland economy
- assessing whether the ongoing declaration of DBCT, and the access that this would support, would result in a promotion of the public interest.

This report is intended to be provided as part of a wider submission to the QCA by the DBCT User Group. Although some of the arguments advanced in this report may be relevant to access declaration arrangements at other infrastructure facilities, our conclusions are based on information that is specific to the services provided by DBCT and the market within which it operates. This report should not be used to draw conclusions on the appropriateness of specific arrangements of other infrastructure facilities.

Key findings

A single terminal is the least cost option for servicing total foreseeable demand over the assumed declaration period

A single terminal is the least cost option for servicing total foreseeable demand for coal handling services at DBCT over the assumed 15 year declaration term.

DBCTM's own demand projections to 2029 remain below the Terminal's nameplate capacity of 85 mtpa. This is further corroborated by projections from resources industry analyst, Woodmac, and also previous forecasts of the QCA. The absence of a need to expand the current facility indicates that the existing terminal facility is the least cost option for meeting foreseeable demand.

For completeness, we assessed a future demand scenario that incorporates a material increase in capacity beyond 2029. In this scenario the existing terminal with augmentation remains the least cost solution to service foreseeable demand over an assumed 15 year term.

While a small number of existing users at DBCT currently export from the Port of Gladstone (either RG Tanna or Wiggins Island Coal Terminal) and/or Abbot Point Coal Terminal, the substitutability of DBCT with these terminals is limited. The shifting of capacity from DBCT to alternative export pathways is unlikely due to the material incremental costs involved in doing so, capacity constraints at alternative terminals and within the existing rail network, and the underlying contractual arrangements that underpin access to the rail network and port terminals.

This view was supported by the Australian Competition and Consumer Commission (ACCC) in its assessment of the impact of Brookfield Consortium's proposed acquisition of Asciano Limited. The ACCC noted that the ports of Gladstone and Abbot Point did not constitute close substitutes to the DBCT Terminal, due to the capacity constraints at the terminals and connecting rail networks, the underlying contractual arrangements that underpin access and the non-electrified nature of the Newlands rail system.

The costs of early termination of existing contractual arrangements for port and rail capacity are material and limit the viability and commercial suitability of substitution between DBCT and alternative export pathways.

Even assuming that capacity at other ports could be accessed, different terminals have port charges which, in some cases, are materially higher than those offered at DBCT. There also would be increased above and below rail costs as a result of typically longer haulage distances to those ports. Moreover, increasing capacity at alternative terminals or within the existing rail network would require significant capital expenditure, which would further increase the costs faced by users wishing to switch capacity from DBCT to alternative export pathways.

DBCTM's 2016 Master Plan observes that 'a further expansion of DBCT is a cost competitive solution for northern and central Bowen Basin mines, notwithstanding the spare capacity reportedly available at Wiggins Island and Abbot Point. DBCT's cost advantage exists due to its proximity and relatively lower total freight cost'.

DBCT is a significant facility, in terms of its size and contribution to the Queensland economy

The coal export industry is a key pillar of the Queensland economy, representing approximately 41 per cent of total exports with a value of approximately $36.3 billion in 2016/17. Metallurgical coal exports represented approximately 80 per cent of the value of Queensland's coal exports.

DBCT is a significant coal terminal in terms of its size. It is Queensland's largest coal terminal and accounted for approximately 31 per cent of total coal exports in 2016/17.

DBCT is also a significant contributor to the State budget, in terms of the coal royalty contributions it underwrites. In 2016/17, we estimate that coal exported through DBCT contributed approximately $1.2 billion in coal royalty payments.

The DBCT facility is also significant in terms of its contribution to the Mackay regional economy. We estimated that in 2016/17, the DBCT facility underpinned mining and exports which supported a contribution of approximately 23 per cent to the Greater Mackay region's Gross Regional Product (GRP). This comprised a direct contribution of approximately $2.0 billion and an indirect contribution of $4.3 billion.

The Terminal has also been identified as a strategic asset for the economic development of Queensland. Under the *Queensland Ports Strategy,* the Queensland Government has identified the port of Hay Point as a Priority Port Development Area.

Access to DBCT, as a result of the ongoing declaration of the facility, would promote the public interest

Declaration promotes the public interest as it:

- creates enhanced incentives for investment in the coal mining sector, particular from new market participants for whom an independent economic regulator provides important assurance,
- allows for access terms to be established within a transparent, well-understand and predictable framework, benefiting both users and the facility owner, and
- supports a continuation of current access arrangements which have served the industry well, including important commercial protections to DBCTM (such as insulation from revenue risk relating to export volumes), a framework which assures the future environmental remediation of the terminal site, and also a framework which has demonstrated that it can be used to support prudent and efficient terminal capacity expansions, if and when required.

Contents

1 Background

1.1 The Dalrymple Bay Coal Terminal

The Dalrymple Bay Coal Terminal (DBCT) is located at the Port of Hay Point, approximately 38 kilometres from Mackay. DBCT services mines within the Bowen Basin in Queensland, and primarily handles metallurgical coal (coking and PCI coal), with some smaller quantities of thermal coal. Coal is transported to DBCT by the Goonyella rail network, owned by the Aurizon Network.

The Terminal is managed by DBCT Management (DBCTM), under a long term lease from the Queensland Government. Terminal operations are provided by DBCT Pty Ltd (DBCT P/L).

Users of the Terminal are members of the DBCT User Group, though the User Group has no formal status at the Port. The User Group is comprised of the following existing and likely future coal customers:

- Anglo American Australia Limited,
- BHP Mitsui Coal Pty Ltd (BMC)
- Fitzroy Australia Resources
- Glencore Australia
- Peabody Energy Australia (Peabody)
- Realm Resources Pty Ltd
- Rio Tinto
- Stanmore Coal Limited
- New Hope (Burton/Lenton)
- Pembroke Resources Pty Ltd (Olive Downs)
- TerraCom Ltd (Blair Athol).
- Whitehaven

DBCT commenced operations in 1983 and was owned and operated by the Queensland Government. In 2001, DBCT was privatised by way of a long-term lease to DBCT Management (DBCTM). The lease has an initial term of 50 years, with the option to extend an additional 49 years. As a condition of privatisation, the Terminal was declared for the purposes of third party access for an initial term of ten years. Access to the coal handling services provided by DBCT is regulated under the *Queensland Competition Authority Act 1997* (the QCA Act),[1] by the Queensland Competition Authority (QCA).

[1] Queensland Competition Authority Act

Following the privatisation of DBCT, in 2001, the QCA Act was amended to retrospectively declare the coal handling services offered at the Dalrymple Bay Coal Terminal.[2] In 2010, the *Motor Accident Insurance and Other Legislation Amendment Bill 2010* set the declaration period an expiry date of 8 September 2020.[3]

1.2 Amendments to the Queensland Competition Act 1997 declaration criteria

The QCA Act provides the key framework for economic regulation of infrastructure in Queensland. Section 5 of the QCA Act provides the legal rights for negotiating the terms of third party access to regulated infrastructure. Since coal handling services at DBCT are declared, DBCTM is required to negotiate with any access seeker regarding the terms of access. There is currently an access undertaking in place for access to the Terminal.[4]

In August 2017, Queensland Treasury released a paper[5] outlining proposed amendments to the criteria in the QCA Act which are to be used to determine the application of access regulation (the access criteria). The purpose of the amendments are to align the QCA Act criteria to the Council of Australian Governments' *Competition Principles Agreement 1995,*[6] and reflect changes made to the *Competition and Consumer Act 2010* (the CCA) as a result of recommendations from the Competition Policy Review[7] and the Productivity Commission's review of the National Access Regime.[8] Aligning the QCA Act with the National Access Regime is intended to streamline and simplify the process for declaring services and provide greater regulatory certainty.

In March 2018, the Queensland Competition Authority Amendment Bill 2018 was given assent. Since DBCT's declaration is due to expire in September 2020, the Queensland Competition Authority (QCA) is required to recommend to the Minister whether the service ought to be declared for a further period, having regard to the amended QCA Act declaration criteria.

In April 2018, the QCA released a staff issues paper, *Declaration reviews: applying the access criteria*. The QCA also commenced a consultation process as part of the Declaration Review of coal handling services at DBCT.

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2 Queensland Competition Authority Amendment Regulation (No. 1) 2001, available at: https://www.legislation.qld.gov.au/view/pdf/asmade/sl-2001-0021

3 Motor Accident Insurance and Other Legislation Amendment Act 2010, available at: https://www.legislation.qld.gov.au/view/pdf/asmade/act-2010-032

4 Access undertakings are governed by the QCA. An access undertaking establishes the key principles that guide access negotiations to declared services, such as how charges for the service are to be determined, the timeframes for information provision in access negotiations and ring-fencing arrangements.

5 Queensland Treasury (2017), *Queensland Competition Authority Amendment Bill 2017 – Consultation paper*, available at: https://s3.treasury.qld.gov.au/files/Consultation-Paper-on-QCA-Amendment-Bill-2017.pdf

6 Council of Australian Government (1995) *Competition Principles Agreement*, available at: https://www.coag.gov.au/about-coag/agreements/competition-principles-agreement

7 Professor Ian Harper; Peter Anderson; Su McCluskey: Michael O'Bryan QC (2015) Competition Policy Review – Final Report, available at: http://competitionpolicyreview.gov.au/files/2015/03/Competition-policy-review-report_online.pdf

8 In February 2014, the Productivity Commission released the Inquiry Report into the National Access Regime analysing the regime's objectives, effectiveness and potential reforms, refer below.
Productivity Commission (2013) *National Access Regime Inquiry Report*, available at: https://www.pc.gov.au/inquiries/completed/access-regime/report/access-regime.pdf

1.3 This report

The DBCT User Group engaged PricewaterhouseCoopers Consulting (Australia) (PwC) to assist in preparing a response to the QCA regarding the ongoing declaration of the Dalrymple Bay Coal Terminal. We have addressed this by:

- assessing whether the DBCT facility is likely to be able to meet foreseeable demand, at least cost, compared to any combination of two or more alternative facilities, including by:
  - undertaking an assessment of current and likely future throughput at DBCT,
  - assessing capacity expansion options to identify the least cost combination of facilities to service foreseeable demand for coal handling services at DBCT,
- assessing the size and significance of the DBCT facility to the Queensland economy, and
- assessing whether the ongoing declaration of DBCT, and the access that this would support, would result in a promotion of the public interest.

This report is intended to be provided as part of a wider submission to the QCA by the DBCT User Group. Although some of the arguments advanced in this report may be relevant to access declaration arrangements at other infrastructure facilities, our conclusions are based on information that is specific to the services provided by DBCT and the market within which it operates. This report should not be used to draw conclusions on the appropriateness of specific arrangements of other infrastructure facilities.

This report is structured as follows:

- Section 2 provides an overview of the access criteria and outlines how we propose to assess the access criteria, specifically in the context of DBCT.
- Section 3 describes access criterion (b) and demonstrates that a single facility at DBCT is the least cost option for servicing total foreseeable demand.
- Section 4 describes access criterion (c) and articulates why DBCT is a facility of significance to the Queensland and Australian economy.
- Section 5 describes access criterion (d) and establishes the public benefits that are likely to arise from the continued declaration of DBCT.
- Section 6 describes the key findings from the analysis performed in Sections 2 – 5.
- Section 7 presents our disclaimer.

The appendices contain additional data, analysis and reports that have been prepared as part of evaluating the access criteria for the declaration of the services at DBCT.

2 Access criteria

2.1 The access criteria

The QCA Act provides a framework for the economic regulation of infrastructure in Queensland. Section 5 of the QCA Act establishes a framework for third party access to regulated infrastructure. This includes access criteria, as described in section 76 of the QCA Act.

In August 2017, Queensland Treasury released a paper[9] outlining proposed amendments to the criteria in the QCA Act which are to be used to determine the application of access regulation (the access criteria). The purpose of the amendments is to align the QCA Act to the *Competition and Consumer Act 2010,* and the subsequent amendments to the CCA, as a result of recommendations from the Competition Policy Review and the Productivity Commission's review of the National Access Regime. On 29 March 2018, the Queensland Parliament approved the proposed changes to the access criteria in the QCA Act. The amended access criteria are detailed in Table 1.

Table 1: Access criteria, as defined in Queensland Competition Authority Amendment Bill 2018[10]

Access	Criteria
Criterion (a)	that access (or increased access) to the service, on reasonable terms and conditions, as a result of a declaration of the service would promote a material increase in competition in at least one market (whether or not in Australia), other than the market for the service
Criterion (b)	that the facility for the service could meet the total foreseeable demand in the market: (i) over the period for which the service would be declared; and (ii) at the least cost compared to any two or more facilities (which could include the facility for the service)
Criterion (c)	that the facility for the service is significant, having regard to its size or its importance to the Queensland economy
Criterion (d)	that access (or increased access) to the service, on reasonable terms and conditions, as a result of a declaration of the service would promote the public interest.

This report considers criterion (b), (c) and (d) and how these apply to services at DBCT.

9 Queensland Treasury (2017), *Queensland Competition Authority Amendment Bill 2017 – Consultation paper*, available at: https://s3.treasury.qld.gov.au/files/Consultation-Paper-on-QCA-Amendment-Bill-2017.pdf

10 Queensland Competition Authority Amendment Bill 2018, available at: https://www.legislation.qld.gov.au/view/pdf/inforce/current/act-1997-025

2.2 Applying the criteria

In seeking to apply the criteria, it is first necessary to define the service for which access is sought. Declaration is sought for the services provided by a facility, as opposed to the facility in and of itself. Criteria (a), (b) and (d) focus on the service, whereas criterion (c) focuses on the facility itself.

Table 2: Applying the criterion

Criterion	Key considerations
Criterion (a)	Criterion (a) tests whether access (or improved access) to the service as a result of declaration would increase competition in other markets, whether domestically and internationally. Criterion (a) is evaluated through assessing: • the 'counter-factual' – i.e. the QCA's view of the likely future of competition in dependent markets, with and without the service being declared, • the extent to which dependent markets are delineated from the market for the service, and • whether declaring the service would result in a material increase in competition in those dependent markets. Key to applying criterion (a) is how the market for the service and its dependent markets are defined, as this forms the basis for determining the extent to which competition is likely to be materially affected by changes to the conditions of access to the service caused by declaration. It is common for dependent markets to be vertically related to the market for the declared service, i.e. the dependent markets are typically downstream or upstream of the market for the declared service in a supply chain.
Criterion (b)	Criterion (b) is a form of 'natural monopoly' test which is used to assess whether the facility for the service would be the least cost facility for servicing foreseeable demand in the market, over the proposed term of declaration. This criterion is concerned with assessing whether the facility exhibits significant economies of scale, having a cost base that is predominantly comprised of fixed costs, and having significant 'lumpy' capacity augmentation investment costs. The term of declaration is important as it defines the horizon over which demand is assessed. Foreseeable demand may be forecast for a longer period than the proposed term for declaration, however, it is unlikely that future demand beyond the proposed term would impact the natural monopoly status of the facility during the term of declaration.
Criterion (c)	Criterion (c) tests the significance of the facility, and its associated services, to the Queensland economy. Based on guidance provided by the National Competition Council[11], the economic significance of an infrastructure facility should be determined having regard to: • the size of the facility (i.e. the physical dimensions of the facility and the throughput of goods and services) • the importance of the facility to trade or commerce (i.e. the monetary value of trade that depends on the facility) • the importance of the facility to the state economy (which links directly to the upstream and downstream markets, and where access could materially improve competition). Importantly, the QCA Act amendments do not contain any specific ratios or size criteria for this criteria to be met. Whether a service is deemed to have satisfied this will instead rely on the judgment of the QCA.

[11] National Competition Council (2013) *A guide to declaration under Part IIIA of the Competition and Consumer Act 2010 (Cth)*, available at: http://ncc.gov.au/images/uploads/Declaration_Guide_2013.pdf

Criterion	Key considerations

Criterion (d)	Criterion (d) is a form of an 'overall net public benefit' test that is used to determine whether the declaration of the service would promote the public interest. The considerations associated with public interest and public benefit are not specifically defined in the QCA Act, or within other relevant Australian competition legislation. Therefore a range of factors may be relevant to the Minister in determining whether a declaration of the service promote the public interest.
	We expect that an assessment of criterion (d) would involve an assessment of whether the declaration would lead to:
	• the impact that declaration would have on investment in:
	  • markets that depend on access to the declared service,
	  • infrastructure services
	• the administrative and compliance costs that would be incurred by the service provider as a result of declaration, and
	• any other matter the Minister may deem as relevant.
	Central to the application of criterion (d) is understanding any likely public benefits and detriments that may occur as a result of the declaration of the service. These benefits and detriments may be quantitative (such as increases in administrative and compliance costs) or qualitative (such as the likely incentives for innovation and investment that arise as a result of the declaration).

3 Access criterion (b)

Criterion (b): that the facility for the service could meet the total foreseeable demand in the market:
(i) over the period for which the service would be declared; and
(ii) at the least cost compared to any two or more facilities (which could include the facility for the service.

3.1 Identifying the relevant facility and service for which access is sought

Defining the facility and service for which access is sought is fundamental to assessing whether access criterion (b) is satisfied. The QCA Act defines a facility as:

(1) Facility includes:

a *rail transport infrastructure; and*

b *port infrastructure; and*

c *electricity, petroleum, gas or GHG stream transmission and distribution infrastructure; and*

d *water and sewerage infrastructure, including treatment and distribution infrastructure.*[12]

The DBCT facility comprises four offshore wharves, three rail receiving stations, a stockyard, stacker-reclaimers, stockpile rows and outloading systems. Currently, DBCT has a nameplate capacity of 85 million tonnes per annum (mtpa),[13] making the facility the largest standalone coal export terminal in Queensland. The 2017 DBCT Incremental Expansion DAAU indicates that the Terminal has an expandable capacity of 135 mtpa.[14]

[12] Section 70 of the QCA Act, available at: https://www.legislation.qld.gov.au/view/pdf/inforce/current/act-1997-025

[13] DBCT (2018) *What we do*, available at: http://www.dbct.com.au/what-we-do

[14] DBCT Management (2016), *Master Plan 2016 – Expansion Opportunities at the Dalrymple Bay Coal Terminal*, available at: http://www.dbctm.com.au/_files/EOMReports/Master%20Plan%202016.pdf

The QCA Act defines a service as:

(1) Service is provided, or to be provided, by means of a facility and includes, for example:

a *the use of a facility (including, for example, a road or railway line); and*

b *the transporting of people; and*

c *the handling or transporting of goods or other things; and*

d *A communication or similar service.*[15]

For the purposes of our analysis, we have adopted a definition of services at DBCT including all services provided by the rail receiving stations through to the offshore wharves and outloading systems as required to handle common-user coal at the Terminal, henceforth referred to in this report as *the services at DBCT*.

3.2 Defining the market for DBCT's services

To determine the total foreseeable demand over the proposed declaration period, it is necessary to, first, define the concept of a market, and then identify the boundaries of the market likely to be impacted by any declaration.

The QCA Act defines a market as:

1 *A market is a market in Australia or a foreign country*

2 *If market is used in relation to goods and services, it includes a market for –*

a *The goods or services; and*

b *Other goods or services that are able to be substituted for, or are otherwise competitive with, the goods or services mentioned in paragraph (a).*[16]

Market definition has been considered previously by various economic regulators, for access and other purposes. Key considerations from prior market definition assessments are outlined in Table 3.

[15] Section 72 of the QCA Act, available at: https://www.legislation.qld.gov.au/view/pdf/inforce/current/act-1997-025

[16] Section 71 of the QCA Act, available at: https://www.legislation.qld.gov.au/view/pdf/inforce/current/act-1997-025

Table 3: Regulatory precedent, market definition

Year	Service for which declaration was sought	Relevant legislation	Commentary
2016	Services offered by Port of Newcastle shipping channel	*Competition and Consumer Act 2010*	In assessing Glencore's application for the declaration of the Port of Newcastle shipping channel, the National Competition Council (NCC) considered that the service description was fundamental in distinguishing the market, as the service description could narrow the effect of access on competition in upstream and downstream markets.[17] Both the Australian Competition Tribunal and the Federal Court of Australia held that the services offered by the shipping channel are necessary for the export of coal from the Hunter Valley, as it is the 'only commercially viable option' within the region. Therefore, the shipping channel services offered by the Port of Newcastle were understood to be a natural monopoly.[18]
2018	Freight haulage of containers	*Competition and Consumer Act 2010*	In its *Statement of Reasons*, regarding the proposed acquisition of Aurizon's intermodal services by Pacific National/Linfox, the Australian Competition and Consumer Commission (ACCC) defined the market with reference to degrees of substitution. It focused on: • product substitution – the extent to which products are interchangeable to consumers, and • geographic substitution – whether other suppliers are operational in the same market.[19] In relation to the service, the ACCC's market inquiries indicated that both price and non-price factors determine the extent of substitutability for road and rail cargo transport for various types and volumes of freight. Market participants reported that substitution between road and rail linehaul occurred only in limited circumstances, such as extreme weather events. The ACCC determined that this does not constitute close substitution. Moreover, the ACCC found that sea freight is not a viable substitute for rail freight for intra-Queensland movements due to differences in transit times and minimum tonnage requirements. In addition, sea freight often increases the cost of capital to store goods while in transit.

[17] NCC (2015), *Declaration of the shipping channel service at the Port of Newcastle –final recommendation,* available at: http://ncc.gov.au/images/uploads/DEPONFR-001.pdf

[18] Federal Court of Australia (2017), *Port of Newcastle Operations Pty Ltd v Australian Competition Tribunal - [2017] FCAFC 124*, available at: http://www.judgments.fedcourt.gov.au/judgments/Judgments/fca/full/2017/2017fcafc0124

[19] ACCC (2018) *Anti-competitive conduct,* available at: https://www.accc.gov.au/business/anti-competitive-behaviour/anti-competitive-conduct

Year	Service for which declaration was sought	Relevant legislation	Commentary
1974	Flour and bread provision	*Trade Practices Act 1974*	In assessing the proposed mergers between Queensland Co-operative Milling Association, Defiance Holdings Ltd and Barnes Milling Ltd,[20] the Trade Practices Tribunal (the Tribunal) determined that relevant elements of market structure were: • the number of independent sellers in the market, having regard to the degree of market concentration, • the extent of barriers to entry and of product differentiation, • the nature and extent of any vertical relationships between consumers and suppliers, • the nature of the arrangements between firms which restrict the firm's ability to act as an independent entity. Under these conditions, the Tribunal defined a market as the 'area of close competition' between suppliers, with substitutability being a defining feature of markets. Where there is no close competition between suppliers in the market, the Tribunal held that the market can be defined as monopolistic.

Substitutability between different products or services is a key feature for the definition of a market for Australian economic regulators. In determining the extent of substitutability between different products or services, Australian economic regulators seek to establish the dimensions of the relevant market, whether these are product, geographic or time based. The dimensions of a relevant market establish whether there are - or if there is reasonable potential for - viable substitutes for the service, as well as the factors that influence the substitutability of the service.

When substitutes cannot be established, as in the case of the shipping channel at the Port of Newcastle, the service is held to be a natural monopoly.[21] Significant physical barriers, such as having to build another shipping channel or port within proximity of the Hunter Valley Coal Region, meant that no viable substitute could be identified. In demonstrating the cost of a new shipping channel, Glencore held the $2.4 billion valuation of the current shipping channel as the minimum cost that would be required for a new channel.[22] Additional costs such as land acquisition, the construction of new railways and processes required for acquiring state land and environmental approvals would also require consideration. Regulators were satisfied that it would be uneconomical to duplicate the facility to provide the service.

Both price and non-price factors may influence the extent of substitutability between two or more goods and services. For instance, in its *Statement of Issues,* the ACCC contended that Aurizon's intermodal services were not readily substitutable with alternate modes of transport, such as road freight or sea freight, due to capacity considerations and the appropriateness of the transport mode for hauling different types of goods. The ACCC found that road freight was best suited for goods that are perishable due to the time sensitive nature of the haulage of those goods, whereas intermodal services were best utilised for non-perishable goods.

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[20] ACCC (1976), *Re Queensland Co–operative Milling Association Ltd., Defiance Holdings Ltd. (Proposed Mergers with Barnes Milling Ltd.)*, available at: https://www.accc.gov.au/system/files/49%20-%20Queensland%20Co-operative%20Milling%20(1976)%20ATPR%2040-012.pdf

[21] We note that superseded criteria were used in assessing the declaration of the Port of Newcastle shipping channel. The access criteria in the QCA Act and the CCA have since been updated to reflect the recommendations of the Productivity Commission and the Competition Policy Review. The changes in criteria relate to the effects of declaration on competition, the ability to service market demand and the public interest. In assessing competition, the new test under the CCA necessitates the use of counter-factual analysis; that is, assessing the likely future with and without access. Public interest assessments are now undertaken with regard to the promotion of the public good.

[22] Glencore Coal Pty Ltd (2015) *Application for a declaration recommendation in relation to the Port of* Newcastle, available at: http://ncc.gov.au/images/uploads/DEPONAp-001.pdf

When considering the market likely to be affected by the declaration of DBCT, we have considered whether there are viable substitutes for the coal handling services provided by the Terminal. We have not considered the substitutability of coal as a product, but rather assessed whether there is alternative infrastructure that is capable of handling and exporting coal from the relevant mines which comprise the DBCT market.

3.2.2 *Identifying the boundaries of the relevant market for coal handling services at DBCT*

Coal that is exported through the DBCT comes from mines located in Bowen Basin in Queensland. The Bowen Basin and its associated coal supply chains is detailed in Figure 1.

Figure 1: Coal supply chains that service the Bowen Basin

Source: Queensland Government, Department of State Development (2012), *Coal transport system map*, available at: https://www.statedevelopment.qld.gov.au/resources/map/cg/coal-transport-system-map.pdf

The Bowen Basin covers an area of approximately 160,000 square kilometres[23] and contains the majority of Queensland's coal reserves. As of June 2016, there were 43 active mining operations in the Basin.[24] The Bowen Basin is a significant contributor to Queensland's coal exports, with the Basin and its associated export supply chains producing approximately 80 per cent of Queensland's total coal production.[25]

Coal is transported via rail from the Bowen Basin to various ports along the east coast of Australia.[26]

The rail systems and haulage operators that service the Bowen Basin are outlined in Table 4.

Table 4: Rail systems servicing the Bowen Basin[27]

Rail system	Connects to	Rail operator	Comment
Goonyella supply chain	Port of Hay Point	Aurizon, Pacific National	• Annual capacity of 220 mt. • The available capacity, after provisions for maintenance and renewals and losses, is 140 mt. • Committed capacity is 139 mt, leaving an available capacity of 1.86 mt.
Newlands System	Port of Abbot Point	Aurizon	• Annual capacity of 90.3 mt (combined with GAPE). • The available capacity, after provisions for maintenance and renewals and losses, is 53.7 mt. • Committed capacity is 51.4 mt, leaving an available capacity of 2.31 mt.
Goonyella to Abbot Point Expansion Project (GAPE)	Port of Abbot Point	Aurizon	• Annual capacity of 90.3 mt (combined with Newlands). • The available capacity, after provisions for maintenance and renewals and losses, is 53.7 mt. • Committed capacity is 51.4 mt, leaving an available capacity of 2.31 mt.
Blackwater System	Port of Gladstone	Aurizon	• Annual capacity of 288 mt. • The available capacity, after provisions for maintenance and renewals and losses, is 171 mt. • Committed capacity is 153.3 mt*, leaving an available capacity of 17.9 mt.
Moura system	Port of Gladstone	Aurizon	• Annual capacity of 54.9 mt. • The available capacity, after provisions for maintenance and renewals and losses, is 32.7 mt. • Committed capacity is 7.96 mt, leaving an available capacity of 24.7 mt.

Source: Aurizon (2016) *Baseline Capacity Assessment Report | Public Report 2016 – Aurizon Network,* available at: http://www.qca.org.au/getattachment/c8618c44-b380-4391-9ca0-40d9d84d8161/Aurizon-Network%E2%80%94Baseline-Capacity-Assessment-Repor.aspx
*78.2 mtpa is committed to coal.

[23] Australian Government, Geoscience Australia (2018) *Bowen Basin,* available at: http://www.ga.gov.au/scientific-topics/energy/province-sedimentary-basin-geology/petroleum/onshore-australia/bowen-basin

[24] Queensland Government Statistician's Office (2016) *Bowen Basin population report 2016,* available at: http://www.qgso.qld.gov.au/products/reports/bowen-basin-pop-report/bowen-basin-pop-report-2016.pdf

[25] Queensland Competition Authority (2018) *Ports: About DBCT,* available at: http://www.qca.org.au/Ports

[26] BITRE (2016) *Freightline 4 – Australian coal freight transport,* available at: https://bitre.gov.au/publications/2016/files/Freightline_04.pdf

[27] Aurizon (2016) 2017 Draft Access Undertaking UT5 (Clean), available at: http://www.qca.org.au/getattachment/f094dd5d-abe1-419e-a288-2151f34d38ce/2017-Draft-Access-Undertaking-(clean).aspx

The Goonyella rail system connects the Bowen Basin to DBCT. Aurizon Network and Pacific National compete to provide rail haulage services to DBCT. The Goonyella rail system services approximately 20 mines operating in the Bowen Basin and has an annual capacity of approximately 140 mtpa.[28]

There are also a number of coal terminals that service mines in the Bowen Basin as described in Table 5.

Table 5: Operational coal terminals that service mines in the Bowen Basin

Port	Description of Facility	Description of services	Nameplate capacity of coal terminals	Available Capacity
Dalrymple Bay Coal Terminal (*Port of Hay Point*)	Four offshore wharves, three rail receiving stations, a stockyard, stacker-reclaimers, stockpile rows and outloading systems. Average throughput of 65.9 mtpa since 2012-13.	Coal handling services provided by the terminal operator, DBCT Management, for a number of coal exporters.	85 mtpa	Calculated as 4.7 mtpa based on the QCA's 5 April 2018 review event notice.[29]
Hay Point Coal Terminal (*Port of Hay Point*)	Three berths as of 2015 expansion[30] North Queensland Bulk Ports Corporation draft master plan for the terminal is scheduled for a 2018/19 release. Average throughput of 42.6 mtpa since 2012-13.	Coal handling services provided by the terminal operator, Hay Point Services, for BMC exclusively.	55 mtpa	Not reported
RG Tanna Coal Terminal (*Port of Gladstone*)	The RG Tanna coal terminal has three rail unloading stations, 22 stockpiles, three shiploaders and four berths.[31] Average throughput of 61.2 mtpa since 2015-16.	Coal handling services provided by the terminal operator, Gladstone Ports Corporation, for multiple coal customers exporting through the Port of Gladstone.	75 mtpa[32]	Not reported
Wiggins Island Coal Terminal (*Port of Gladstone*)	The terminal consists of 12 notional stockpiles, one shiploader and one berth. Coal is stacked using overhead bridge stackers and dozer reclaimers.[33] No stacker-reclaimers. Average throughput of 8.6 mtpa since 2015-16.	Coal handling services provided by the terminal operator, WICET,[34] for multiple coal customers exporting through the Port of Gladstone.	27 mtpa (current)	11 mtpa[35]

[28] BITRE (2016) *Freightline 4 – Australian coal freight transport,* available at: https://bitre.gov.au/publications/2016/files/Freightline_04.pdf

[29] Queensland Competition Authority (2017) *Change in Reference Tonnage*, available at: http://www.qca.org.au/getattachment/0769c3d7-1243-49c5-97a1-14a25b9c3824/DBCTM%E2%80%94Reference-Tonnage-Review-Event.aspx

[30] Queensland Government, Premier's Office (2015) *New BMA Hay Point coal terminal berth boosts state coal exports*, available at: http://statements.qld.gov.au/Statement/2015/12/16/new-bma-hay-point-coal-terminal-berth-boosts-state-coal-exports

[31] Gladstone Ports Corporation (2015) *RG Tanna and Barney Point Coal Terminals*, available at: http://gpcl.com.au/SiteAssets/Publications/GPC_BROCHURE_GPC_Coal_Port_2015.pdf

[32] Queensland Government, Department of State Development (2017) *Draft master plan – Priority Port of Gladstone*, available at: http://statedevelopment.qld.gov.au/resources/plan/ports/draft-master-plan.pdf

[33] Queensland Government, Department of State Development, Infrastructure and Planning (2012) *Wiggins Island Coal Terminal – Coordinator-General's change report, number 1*, available at: https://www.statedevelopment.qld.gov.au/resources/project/wiggins-island-coal-terminal/wict-cg-change-report-01.pdf

[34] Gladstone Ports Corporation (2017), *Port Information Handbook*, available at: http://www.gpcl.com.au/SiteAssets/Port%20Info%20Handbooks/Gladstone_Port_Information_Handbook.pdf

[35] WICET (2018) *Access*, available at: http://www.wicet.com.au/irm/content/access1.aspx?RID=379

Port	Description of Facility	Description of services	Nameplate capacity of coal terminals	Available Capacity
Abbot Point Coal Terminal (*Port of Abbot Point*)	The terminal consists of six stockpile rows, two rail inloading facilities, two shiploaders and two berths.[36] A draft master plan is expected to be released in 2018/19. Average throughput of 24.2 mtpa since 2012-13.	Coal handling services provided by the terminal operator, Abbot Point Bulk Coal Pty Ltd, for multiple coal customers exporting through the Port of Abbot Point.	50 mtpa[37]	0 mtpa[38] Based on discussions with the User Group, we understand that 10 mtpa of capacity has recently become available at Abbot Point.

DBCT currently services ten existing coal customers and has approximately 90.27 mtpa of capacity in the access queue, as at June 2017.

3.2.3 The relevant market

The extent of substitutability defines the boundaries of the market that is likely to be affected by the declaration of the service.

There are a range of factors that influence and determine the extent of substitutability between DBCT and other operational coal ports on the east coast of Australia, including:

- geographic factors, and specifically haulage distance, which is a key driver of below- and above-rail costs,
- the degree of service differentiation in the coal handling services provided by different terminals,[39] and
- the nature of underlying contractual arrangements that underpin access to both rail infrastructure, rail haulage services and port capacity.

[36] North Queensland Bulk Ports Corporation (2017) *Port of Abbot Point Operations Manual*, available at: https://nqbp.com.au/__data/assets/pdf_file/0020/3278/Port-of-Abbot-Point-Operations-Manual-2016-2017.pdf

[37] North Queensland Bulk Ports Corporation (2017) *Port of Abbot Point Operations Manual*, available at: https://nqbp.com.au/__data/assets/pdf_file/0020/3278/Port-of-Abbot-Point-Operations-Manual-2016-2017.pdf

[38] FIIG (2015) *Adani Abbot Point Research Report – 9 June 2015,* http://thewire.fiig.com.au/article/2015/06/09/adani-research-report-2015

[39] While demand for the transport for export of bulk commodities can be met by a range of different transport modes, the degree of substitutability between different transport modes and ports services is generally limited. Therefore, we have not considered alternative transport modes, such as slurry pipelines or air freight, to port services for the export coal.

The substitutability between DBCT and alternative terminals is constrained by a range of geographic factors including limitations of the existing rail infrastructure and different haulage differences, resulting in increased rail access charges

The majority of mines within the Bowen Basin export coal from the Port of Hay Point. A small number of DBCT users with operational mines located on the northern/southern boundaries of the Goonyella system also haul coal to terminals at the ports of Gladstone and Abbot Point, which could imply that there is a limited degree of substitutability between these terminals and DBCT (or was at that time of contracting). However, these mines represent a marginal percentage of overall users due to the viability and commercial suitability of these alternative export pathways being heavily constrained by the material incremental costs in switching, commercial terms and capacity of the existing rail network and other ports with coal terminals.

Obtaining access to coal terminals typically requires the access seeker to provide evidence of matching below rail access. The existing rail infrastructure that supports the ports of Abbot Point and Gladstone are capacity constrained, meaning there is insufficient capacity within the existing network to support capacity shifting from DBCT to alternative export pathways.

Figure 2 outlines the available track capacity within the existing Newlands rail system, which supports the export of coal from the port of Abbot Point. Overall, existing available capacity on the Newlands and GAPE systems is 2.31 mtpa.[40] The majority of sections in the Newlands system has between zero and ten mtpa of available capacity. The only segments that have more than ten mtpa of available capacity are:

- Havallah to Cockool,
- Almoola to Brilaba,
- Bindee to Armoona, and
- Buckley to Abbot Point.

[40] Aurizon (2016) *Baseline Capacity Assessment Report | Public Report 2016 – Aurizon Network*, available at: http://www.qca.org.au/getattachment/c8618c44-b380-4391-9ca0-40d9d84d8161/Aurizon-Network%E2%80%94Baseline-Capacity-Assessment-Repor.aspx

Figure 2: Newlands rail system track capacity

Source: Aurizon (2016), *Network Development Plan 2016-17*, available at: https://www.aurizon.com.au/~/media/aurizon/files/what%20we%20do/network/network%20development%20plans/ndp/networkdevelopmentplan_2016-17.pdf

Existing available capacity (for both coal and non-coal trades) on the Blackwater system is 17.9 mtpa.[41] We note that users of this system contest that there is available capacity within the network, evidenced by Glencore's response to the QCA in respect of Aurizon's recent undertaking, which suggested that there was a capacity deficit of 26 mtpa for the Blackwater rail system.[42]

[41] Aurizon (2016) *Baseline Capacity Assessment Report | Public Report 2016 – Aurizon Network*, available at: http://www.qca.org.au/getattachment/c8618c44-b380-4391-9ca0-40d9d84d8161/Aurizon-Network%E2%80%94Baseline-Capacity-Assessment-Repor.aspx

[42] Glencore (2018) *Submission to the Queensland Competition Authority – Redacted for publication*, available at: http://www.qca.org.au/getattachment/4dbc267e-8b90-4e8d-affc-e112150468c5/Glencore-Submission-on-GHD-Report-Public.aspx

Significant capital expenditure would be required to expand the existing network to accommodate any additional capacity requests. As a result, transferring capacity from DBCT would likely result in a significant cost penalty for users.

Even assuming that there was sufficient available capacity within the existing rail network to accommodate the transfer of capacity from DBCT to alternative export pathways, there are physical constraints within the existing network infrastructure that limit rail access. Some of these factors include:

- *rail spurs at mine site*. These are constructed to align to the contracted capacity within a particular rail network pathway. While a train can alter its direction of travel to an alternative rail network and port terminal, there would be a disruption in the existing service standards as a train was being manoeuvred to enable its access to the alternative path. This could also lead to impacts to the available capacity on the main line.

- *reference train size within each rail system*. Trains that operate within the Goonyella system would be considered oversized within the Newlands and Blackwater systems, meaning that the trains would be too long to be supported by existing inloading and outloading facilities at alternative coal terminals.

- *different infrastructure on the Newlands and Goonyella systems*. The Newlands and Goonyella systems facilitate diesel only and both diesel and electric locomotives, respectively. If existing capacity at DBCT was to be transferred to the Abbot Point coal terminal, significant investment would be required to reconfigure mine-specific rail infrastructure to obtain access to the new network, as well as investment in rail infrastructure or plant to utilise the alternative network.

In addition, due to different haulage distances between mine site and DBCT relative to alternative export pathways, the transfer of contracted capacity at DBCT to an alternative pathway will result in different above and below rail costs. These incremental costs would for most mines be significant and reduce the viability of substitutability between terminals.

The coal handling services offered by DBCT are differentiated when compared to the services offered by alternative terminals

DBCT is a multi-user coal terminal with a stockyard covering an area of approximately 36.6 hectares, which is serviced by two reclaimers, four stackers and six stacker reclaimers. The stockyard supports the processing of three commercial coal categories which can be blended into a possible 58 registered coal products.[43] There is no existing or proposed terminal which offers the same stockyard space with a similar ability to process coal.

DBCT offers benefits to users being able to co-ship on vessels with other metallurgical coal producers to end destinations. Coal carrying vessels have multiple 'holds' which enables end purchasers of coal to charter a vessel containing coal from different producers, at the same port. This enables blending at the receiving port. There are significantly improved abilities to co-ship from DBCT (compared to other coal terminals) given the much higher proportion of metallurgical coal exported by DBCT (including hard coking coals of the type required to be included in coking blends) – such that it is highly desirable for producers (from a marketing perspective) to export via DBCT and customers in fact request that.

DBCT also promotes the ease of trade of metallurgical coal of similar grades or quality between parties, such that a train or a trimming stockpile may be provided from one party to another. This feature is unique to DBCT.

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[43] DBCTM (2018) *About the Terminal,* available at: http://www.dbctm.com.au/aboutdbct.aspx

The relevant market for assessing the future declaration of the services provided by DBCT is the market for the provision of common user coal handling services at the port of Hay Point.

Terminal capacity, the total cost of operations and underlying contractual arrangements constrain the viability of substitution between DBCT and alternative terminals.

DBCT is one of two coal terminals that operate at the Port of Hay Point (the Port). DBCT is a common-user coal export terminal while the Hay Point Coal Terminal (HPCT) operates as a single-user terminal to service the export requirements of BHP Billiton Mitsubishi Alliance exclusively. HPCT is not a viable substitute for the coal handling services offered by DBCT. BHP/BMA have never made available HPCT capacity to any other user other than BMA, BHP Mitsui Coal or their predecessors and, for efficiency reasons, BHP has advised that it would not make available capacity at HPCT to third parties. The fact that a BMA/BHP affiliated user can take up capacity at DBCT does not demonstrate substitutability for all other users. This type of asymmetric substitution should not result in a wider market definition, which includes services that non-BMA/BHP affiliated users cannot switch to.

Long term "take-or-pay" contracts currently underpin access to Queensland's coal terminals and rail networks. The cost of early termination of these contracts are material, limiting substitutability of DBCT with alternative export pathways, at least in the short term. Actual capacity shifting is more likely to occur over the medium term, where re-contracting can be arranged for rail services.

The viability of substituting contracted capacity at DBCT to alternative terminals is constrained by the available capacity within those coal terminals. Substitution may be an option for some users, but significant capacity cannot be transferred from DBCT to alternative terminals without triggering the need for terminal expansions (refer Table 5). Any capacity expansion is likely result in an incremental cost penalty to users.

Whether capacity is available to access seekers at those terminals is at the discretion of the terminal owner. North Queensland Bulk Ports Corporation, for instance, has indicated that existing unused capacity at the Abbot Point Terminal is currently being withheld to users seeking to obtain access in order to support the export of coal from the Carmichael Mine and Rail project.[44]

Different terminals also have differing port and terminal charges, which may be (and in some cases are) materially higher than those offered at DBCT. When combined with incremental above and below rail costs associated with a capacity transfer, the total cost typically precludes DBCT users from participating in other markets.

The long term nature of both rail and port access arrangements, and supporting above-rail haulage agreements, also means that any substitutability is limited to infrequent opportunities to "switch" rail pathways at certain points in time. While there are some opportunities for some (limited) informal capacity trading within existing rail pathways, it is not possible for meaningful capacity quantities to be traded between logistics systems.

Our assessment is consistent with the ACCC's finding when it assessed the impact of Brookfield Consortium's proposed acquisition of Asciano Limited. The ACCC noted that the ports of Gladstone and Abbot Point did not constitute close substitutes to the DBCT Terminal, due to the capacity constraints at the terminals and connecting rail networks, the

44 North Queensland Bulk Ports (2017) *Annual Report 2016-17*, available at: https://nqbp.com.au/__data/assets/pdf_file/0016/2842/NQBP-2201-Annual-Report-2017_PRINT_low-res-2.pdf

underlying contractual arrangements that underpin access and the non-electrified nature of the Newlands rail system.[45]

3.3 The term of the proposed declaration

The initial declaration of DBCT was for a term of ten years. The QCA has not indicated its view as to the possible term of any future declaration which is necessary to understand the level of demand which may occur over that period.

Currently, only two services are declared under the National Access Regime (NAR) by Australian regulators. The majority of services eligible for declaration are regulated by certified state access regimes or undertakings. There are four pathways to access under the NAR: declaration, certified access regimes, undertakings and competitive tender. These are outlined in Table 6.

Table 6: NAR access pathways

Access pathway	Description
Competitive tender	Access to government-owned facilities may be sought through ACCC approved tender processes. No applications for competitive tenders have been made under the NAR.[46]
Undertaking	Service providers may apply to the ACCC for approval of an access undertaking which provides the terms and conditions of access. The ACCC has accepted two rail access undertakings, both submitted by the Australian Rail Track Corporation Ltd (ARTC), the ARTC Interstate Rail access undertaking[47] and the ARTC Hunter Valley access undertaking.[48] The term of each undertaking was five years. Under clause 13 of the 2004 Tripartite Agreement between the federal and NSW governments, and the ARTC for the lease of these rail assets required ARTC to lodge an access undertaking to the ACCC.[49]
Certification	State access regimes may be certified if they are consistent with the principles of the NAR. Access is then granted in accordance with the terms determined by the relevant State or Territory administering authority. The QCA administered access regimes covering DBCT and the Queensland rail network were certified as effective regimes for ten years from 8 September 2010.
Declaration	Declaration is a two stage process, where applicants can seek the right to negotiate access to a declared service and then the parties may negotiate the terms of access. Access disputes are arbitrated by the appropriate regulator or authority. Where a declaration regime is certified, access disputes are arbitrated by the relevant State or Territory authority. In the absence of certification, arbitration may be administered by the ACCC. The services offered by the shipping channel at the Port of Newcastle and the Goldsworthy railway track services are the only services currently declared under the NAR.

Source: Productivity Commission (2013) National Access Regime Inquiry Report, available at: https://www.pc.gov.au/inquiries/completed/access-regime/report/access-regime.pdf; Professor Ian Harper; Peter Anderson; Su McCluskey: Michael O'Bryan QC (2015) Competition Policy Review – Final Report, available at: http://competitionpolicyreview.gov.au/files/2015/03/Competition-policy-review-report_online.pdf

In assessing applications for declaration or certification under the NAR, a range of terms have been proposed by Australian regulators, detailed in Table 7.

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45 ACCC (2015) *Brookfield consortium – proposed acquisition of Asciano Limited,* available at: http://registers.accc.gov.au/content/index.phtml/itemId/1194562/fromItemId/751043

46 ACCC (2018) *s.44Q(c) register,* available at: https://www.accc.gov.au/public-registers/access-to-services-registers/s44qc-register

47 ACCC (2018) *ARTC Interstate Rail access undertaking,* available at: https://www.accc.gov.au/regulated-infrastructure/rail/artc-interstate-rail-access-undertaking

48 ACCC (2018) *ARTC Hunter Valley access undertaking,* available at: https://www.accc.gov.au/regulated-infrastructure/rail/artc-hunter-valley-access-undertaking

49 ARTC (2004) *Memorandum between The Commonwealth of Australia & The State of New South Wales & Australian Rail Track Corporation* https://www.artc.com.au/uploads/Final_Tripartite_Agreement.pdf

Table 7: Regulatory precedent, term of declaration or certification

Year	Service for which declaration/ certification was sought	Term of declaration or certification	Relevant legislation	Comments
2016	Services offered by Port of Newcastle shipping channel	15 years: July 2016 to July 2031	*Competition and Consumer Act 2010*	Glencore requested that the NCC consider a declaration period of 15 years or greater. In setting a 15 year declaration period, the NCC relied on the ACCC's timeframe for the authorised capacity framework arrangements applying to the Hunter Valley coal chain.[50] The NCC considered 15 years to be an appropriate authorisation period given the long-term nature of coal project contracts and the regulatory certainty required to facilitate investment.
2012	Services provided by the Caltex Pipeline and the Jet Fuel Storage Facility	Services not declared.	*Competition and Consumer Act 2010*	In its declaration submission, The Board of Airline Representatives of Australia Inc. (BARA) sought terms of 13 years and 15 year period for the Caltex Pipeline Service and Sydney JUHI Service, respectively. BARA's proposed Caltex Pipeline Service declaration period was designed to expire at the time that that their analysis determined that it would be economical for Caltex to build a new pipeline. Based on industry submissions, the NCC set the declaration end date at June 30 2023, the point at which the council believed it to be uneconomical to develop another pipeline. The NCC determined that given both services were an essential component the jet fuel supply chain that the two service declarations should be timed to expire simultaneously.
2011	Central Queensland Coal Network (CQCN) rail transport service and the Queensland Rail Limited (QRL) rail transport service	Ten years: Sept 2010 to Sept 2020	*Competition and Consumer Act 2010*	The Queensland Government initially sought a certification period of 15 years. Under the QCA Act, the CQCN and QRL rail transport services declared by Ministerial declaration, and therefore subject to the Queensland Rail Access Regime for ten years from September 2010. The NCC considered it logical for the duration of any certification of the Queensland Rail Access Regime to be similar to the period to which it is intended to apply to these services.[51]
2010	Services offered by Blackwater, Goonyella, Moura, and Newlands railway track facilities	Submission withdrawn.	*Trade Practices Act 1974*	Pacific National sought declaration of the services for 50 years. The Queensland Government submitted that declaration of the services for 50 years would disrupt regulatory uniformity with the Queensland Rail Access Regime. The QCA determined a shorter, ten-year declaration term would be more suitable given the Queensland Rail Access Regime already carried provisions granting regulatory certainty to access seekers.[52]

[50] ACCC (2009) *Final Determination – Capacity Framework Arrangements at the Port of Newcastle*, available at: https://www.accc.gov.au/system/files/public-registers/documents/D09%2B193856.pdf

[51] NCC (2010) *Application for certification of the Queensland Rail Access Regime, NCC Final Recommendation*, available at: http://ncc.gov.au/images/uploads/CERaQldFR-001.pdf

[52] NCC (2010) *Application for declaration of the Queensland Rail's Queensland coal rail network, NCC Draft Recommendation*, *available at:* http://ncc.gov.au/images/uploads/DERaQRDR-001.pdf

Year	Service for which declaration/ certification was sought	Term of declaration or certification	Relevant legislation	Comments
2010	Coal handling services offered by the terminal operator at DBCT	Ten years: Sept 2010 to Sept 2020	*Competition and Consumer Act 2010*	In recommending a certification duration, the NCC noted the relevant declarations under the access regime had taken effect for ten years from September 2010. Certification duration of longer than ten years would extend beyond the period for which there is certainty that access to the DBCT will be governed by substantially the same agreements.[53]
2008	Rail service using the Goldsworthy Railway	20 years: Nov 2008 to Nov 2028	*Trade Practices Act 1974*	The Pilbara Infrastructure Pty Ltd (a wholly-owned subsidiary of Fortescue Metals Group) and the Western Australian Government both sought a declaration period of 20 years for the service. The NCC recommended that the service be declared for a period of 20 years agreeing that the timeframe would provide sufficient regulatory certainty to enable parties to explore and undertake investments and enter into long term contracts.[54]
2005	Water storage and transport services offered by Snowy Hydro and State Water facilities.	Service not declared.	*Trade Practices Act 1974*	Lakes R Us sought declaration for 30 years in order to provide market certainty. The NCC's view was that a period of ten to 15 years would be more appropriate given the considerable extent of policy review and development in the water industry at the time. The NCC further noted that a ten year period would match the water planning processes in NSW. The NCC recommended the services not be declared as the services were not deemed to satisfy declaration criteria (a), promotion of competition in a dependent market, and (f), not be contrary to the public interest.[55]

Our assessment of regulatory precedent relating to the term of declaration or certification indicates that Australian regulators have generally adopted a certification/declaration term between ten and 15 years. These decisions have typically been based on a term that will allow sufficient regulatory certainty to facilitate investment, and to match other regulatory or policy regimes currently in place.

For the purposes of our assessment, we have adopted a nominal declaration term of fifteen years, which is broadly consistent with other access declaration or certification precedents.

53 Australian Treasury (2011) *Application for certification of the Dalrymple Bay Coal Terminal Access Regime, Minister's Statement of Reasons,* available at: http://ncc.gov.au/images/uploads/CECTQlSoR-001.pdf

54 NCC (2008) *Application for declaration of the Goldsworthy Railway, NCC Final Recommendation,* available at: http://ncc.gov.au/images/uploads/Goldsworthy_FR-001.pdf

55 NCC (2005) *Application for declaration of water storage and transport services, NCC Draft Recommendation,* available at: http://ncc.gov.au/images/uploads/DEWALRDR-001.pdf

3.4 Total foreseeable demand at DBCT

To determine the total foreseeable demand at DBCT over the proposed term of the declaration, we have assessed the existing contract cover at DBCT, DBCTM's and industry analyst forecasts of future contract cover, and the current access queue, as at June 2017.

3.4.1 Existing contract cover at DBCT

Based on unpublished information provided to PwC by individual members of the User Group, the contracted capacity at DBCT is close to the nameplate capacity until mid-2018. We understand that contracted capacity will increase slightly in 2019 before declining to approximately 20 mtpa in 2024.

Under the 2016 User Agreement, an option to extend the term of the Agreement is exercisable at any time up to 12 months prior to the end of the relevant agreement between DBCTM and the user.[56] Given this renewal mechanism, the level of existing contract cover would be expected to exhibit a decline as existing contracts approach renewal dates.

A number of existing users have previously exercised options to extend contracts, and others have indicated they are likely to do so again as existing agreements reach this nominal expiry date.

3.4.2 DBCT and other demand forecasts

Future demand at DBCT over the proposed term of the declaration is a combination of

- existing contract capacity (including any extensions to these agreements, as noted above), and
- new capacity contracted by access seekers within the existing access queue.

DBCTM provided to the User Group in February 2018 an unpublished forecast of demand for contracted capacity at DBCT. DBCTM's forecast of contracted capacity to 2029 remains below the current nameplate capacity of the Terminal. Under the DBCTM view of contracted capacity, there are slight variations in contract cover to 2026, before the forecast levels out to 2029.

Similarly, industry analyst Woodmac[57] has developed a resources projections of actual throughput at DBCT (made up of the combination of operating DBCT mines and an estimate of new projects coming on line) which remain below DBCT's nameplate capacity for the assumed term. Under the May 2018 Woodmac projection, future demand increases to a maximum of 69 mtpa in 2025 and 2026 before reducing again to 57 mtpa in 2027.

The DBCT User Group also requested that Woodmac prepare an adjusted forecast throughput for DBCT that took a more aggressive view on new projects and the potential movement of contracted capacity from Abbot Point at the completion of the GAPE Deed. This adjusted Woodmac forecast still does not exceed DBCT's existing nameplate capacity over the assumed declaration term, reaching a peak of 84 mtpa in 2025 before reducing to 75 mtpa in 2026.

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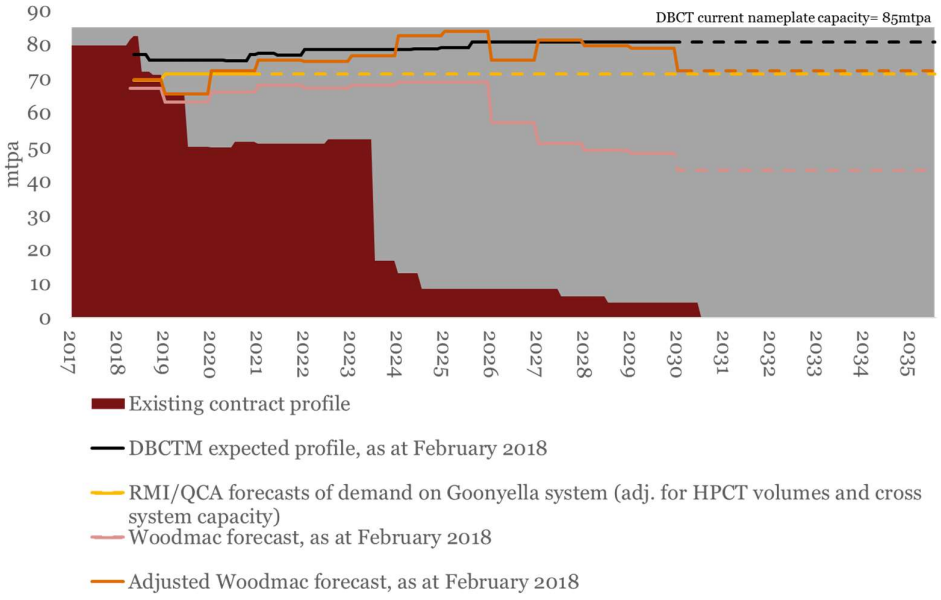
[56] DBCTM (2016) *User Agreement: 2016 Access Undertaking*, available at: http://www.dbctm.com.au/_files/Documents/SAA.pdf

[57] 2018 February Woodmac forecast as prepared for Peabody and included in presentation named *DBCT Scenario, 24 May 2018*

Figure 3 outlines the User Group's existing contracts, Woodmac projections (including the adjusted projections of future actual throughput through DBCT[58]), DBCTM's own view of future contract cover at the Terminal,[59] and the RMI/QCA forecasts of demand on the Goonyella system (adjusted for both Hay Point capacity and an assumed cross system capacity), per the 2017 Draft Decision on Aurizon's access undertaking.[60] We have assumed DBCTM's view of contract cover at 2029 continues to July 2035, the Woodmac views of throughput at 2030 continue to July 2035 and the adjusted RMI/QCA forecasts of actual throughput* to 2021 also continue to July 2035.

Figure 3: Forecasts of future demand at DBCT



Source: Unpublished data provided to PwC by the DBCT User Group, February Woodmac projections, QCA (2017) *Aurizon Network's 2017 draft access undertaking,* available at: http://www.qca.org.au/getattachment/7183cb8a-1be0-4de7-a451-a299e0f97896/QCA-Draft-decision.aspx
*Note: we have adjusted the RMI/QCA forecast of demand on the Goonyella system for 49 mtpa of capacity for the Hay Point Coal Terminal and 10 mtpa of cross system capacity.

58 2018 February Woodmac forecast as prepared for Peabody and included in presentation named *DBCT Scenario, 24 May 2018* and adjusted by the DBCT User Group, unpublished. Note: the User Group has adopted a more aggressive view of projects and incorporated a view of capacity switching from Abbot Point Coal Terminal to DBCT.

59 Per an email provided to the User Group on 21 February 2018

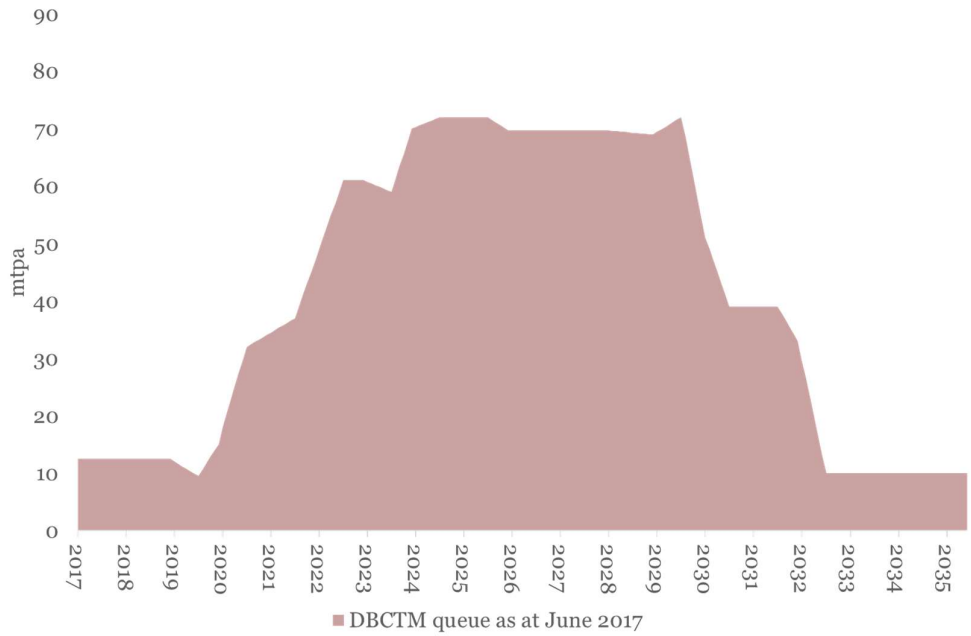
60 QCA (2017) *Aurizon Network's 2017 draft access undertaking,* available at: http://www.qca.org.au/getattachment/7183cb8a-1be0-4de7-a451-a299e0f97896/QCA-Draft-decision.aspx

3.4.3 DBCT access queue

Under the 2016 Access Undertaking (AU), DBCTM must allow access seekers to obtain access to the Terminal.[61] Where there is no spare capacity within the Terminal, the access queue is formed in accordance with section 5 of the AU.

Figure 4 shows the access queue at DBCT, as at June 2027,[62] for the period from 2009 to 2033. We have assumed the level of access queue remains constant from July 2033 to July 2035. The access queue at DBCT increases above 20 mtpa in 2020 and then to approximately 70 mtpa in 2024. The access queue then decreases from 2030 to approximately 10 mtpa in 2034.

Figure 4: DBCT access queue



Source: Unpublished data provided by to PwC the DBCT User Group

Whether queue capacity at DBCT is converted to contracted capacity depends on many factors, including the capacity at the port or terminal, capacity within the rail network, overall market conditions and the availability of coal, whether from a new or existing mine.

Importantly, it is clear that the access queue does not realistically reflect the total foreseeable demand above ongoing existing capacity, as the access requests have not been converted to take-or-pay arrangements and related to development proposals at varying stages of maturity, many of which are yet to reach financial close (and it is evident from the limited degree to which the historical queue levels have been converted into executed access agreements that many access applications are never, in fact, converted into an executed access agreement).

Indeed, this appears to be reflected in DBCTM's own view of future contract cover at DBCT, which indicates that only a small proportion of the existing access queue is likely to be converted into contracted capacity.

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61 DBCTM (2017) *2016 Access Undertaking,* available at: http://www.dbctm.com.au/_files/Documents/AU.pdf

62 DBCTM (2017) *Throughput and Capacity Forum – June 2017 presentation,* unpublished.

We also understand DBCTM is currently in the process of offering long term capacity to access seekers in the queue. Those access seekers in the queue have been offered the available capacity and if they do not opt into that allocation process, they will be removed from the queue. This process is likely to result in a significant reduction in the access queue from that shown in Figure 4.

3.5 Is a single terminal the least cost means of meeting foreseeable demand at DBCT?

Using DBCTM's forecast of total future contract cover at DBCT, a single terminal can service total foreseeable demand at the least cost compared to any two or more facilities. Forecasts from Woodmac (including the adjusted Woodmac forecast) and the QCA corroborate this.

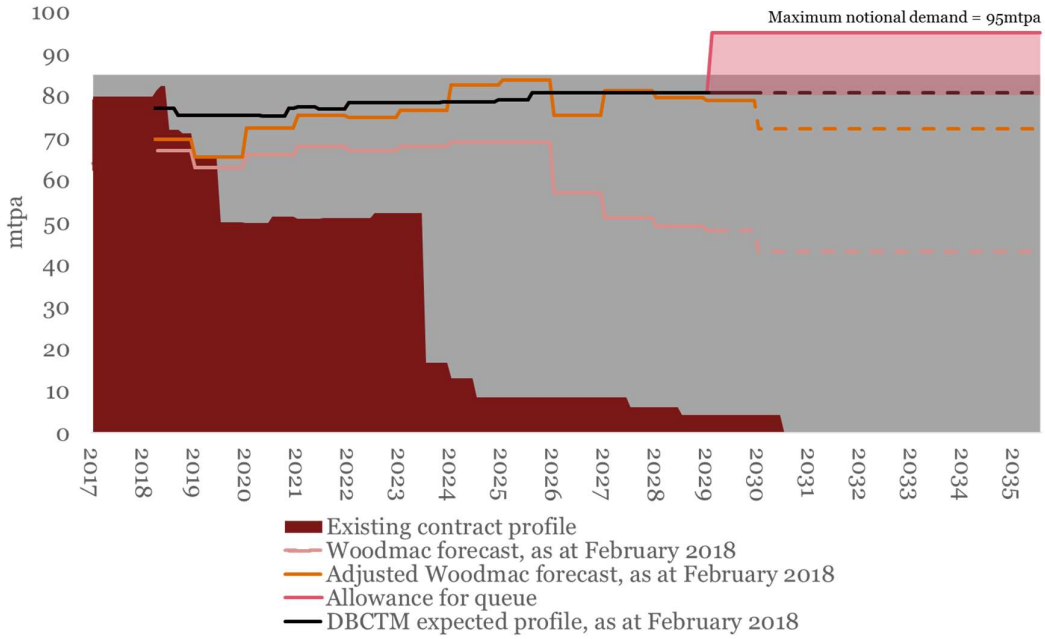
Given that a single existing facility (DBCT) has sufficient capacity to service forecast demand, DBCT satisfies access criterion (b).

In the scenario analysis below, we develop a notional future demand profile based on DBCTM's forecast of future demand, and an allowance for part of the access queue to be converted to contracted capacity after 2029. The notional future demand profile has been used to assess whether, in the unlikely event that contract capacity exceeds current terminal capacity, a single facility continues to be the least cost option to service total demand.

The adopted notional future demand profile at DBCT is shown in Figure 5. Under this demand scenario, foreseeable demand at DBCT would remain below the existing nameplate capacity of DBCT to 2029, in accordance with DBCTM's forecast of future contracted capacity, before notionally increasing to 95 mtpa.

This demand scenario is more conservative than indicated by the DBCTM access queue provided by DBCTM, though is higher than the future projections provided by Woodmac. The assumed notional future demand profile over the declaration term means that the existing facility at DBCT would not be able to service total foreseeable demand without expansion for the notional 2029 increase. As stated above, the notional increase in demand that requires the expansion is not supported by the Woodmac or other credible demand projections, but has been used to assess whether the QCA could be satisfied in respect of criterion (b), even if a materially higher foreseeable demand was assumed.

Figure 5: Notional future demand at DBCT over the assumed declaration term



Source: Unpublished data provided by to PwC the DBCT User Group, 2018 February Woodmac forecast as prepared for Peabody and included in presentation named *DBCT Scenario, 24 May 2018* and adjusted by the DBCT User Group, unpublished.

3.5.1 Options to service total foreseeable demand

To assess whether the single terminal at DBCT is the least cost option to service total foreseeable demand at DBCT, we have considered:

- the cost of existing capacity at the existing terminal,
- the cost of the incremental expansions to the existing terminal infrastructure, or alternative (non-DBCT) terminal options, in various combinations as might be necessary to service total foreseeable demand, and
- the cost of alternative export pathways outside of the market for DBCT's services, including the cost of transporting coal using existing rail networks to export coal at the ports of Abbot Point and Gladstone.

3.5.2 Assessment methodology and framework

Our analysis compares an estimate of the levelised cost per tonne, in FY18 terms, for the (incremental) capacity from each DBCT expansion or alternative export pathway.

To estimate the levelised cost per tonne for DBCT expansion options, we developed a model that estimates a proxy Regulated Asset Base (RAB) for each expansion option. A capital cost per tonne was derived based as a CPI-indexed annuity payment to recover the RAB, applying a series of assumptions including the (incremental) tonnage of that option.

Key parameters applied for each expansion option are:

- **Capital cost of development**: we have relied on capital cost data contained in the 2017 DBCT Incremental Expansion Study DAAU submission by DBCTM[63], and data provided to PwC on the indicative costs of the Dudgeon Point terminal, as estimated by Beca.[64] Our modelling includes an allowance for forward cost escalation (at CPI), to align nominal cost estimates to 30 June 2017 dollar terms.

- **Rate of return**: modelling applies an equivalent current nominal pre-tax WACC across the modelling term. We have not sought to estimate the WACC for each five year period of the assumed term. Modelling assumes a nominal pre-tax WACC of 7.10 per cent. This is equivalent to the nominal post-tax WACC of 5.82 per cent as applied by the QCA in the 2015 Access Undertaking. The rate of return reflects the annual return on assets that DBCTM would be allowed to recover on the capital investment. The rate of return adopted is constant for each option for the purpose of comparative analysis. We have not sought to estimate the WACC for each five year period of the term.

- **Economic life**: an economic life of 37 years from 1 July 2017 is applied, based on the terminal life for DBCT adopted in the QCA's 2015 Draft Access Undertaking Final Decision.

- **Inflation**: a forward estimation of 2.50 per cent is applied based on the mid-point of the RBA's target inflation range.

- **Interest during Construction (IDC):** IDC costs are estimated at 9.6 per cent of the capital cost of each expansion option, based on the IDC component as a percentage of the terminal RAB established in the QCA's 2005 Draft Access Undertaking Draft Decision.

- **Upfront Financing Costs:** up-front financing costs are estimated at 2.3 per cent of the capital cost of expansion, based on the up-front financing cost component as a percentage of the terminal RAB established in the QCA's 2005 Draft Access Undertaking Draft Decision.

- **Operating costs**: operating cost of $2.53/tonne is applied to each expansion option, based on the sum of the 2017/18 Handling Charge Fixed and the Handling Charge Variable, as published by DBCTM.[65]

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63 DBCTM (2017) *DBCT Incremental Expansion Study*, available at: http://www.qca.org.au/getattachment/f1ab7119-6909-4260-b150-f181be4a87b3/DBCTM%E2%80%94Expansion-Study-DAAU-submission.aspx

64 Beca (2012) *Dudgeon Point (90Mtpa) Coal terminal Concept Study Volume I of II*, unpublished.

65 DBCTM (2017) *Charges*, available at: http://www.dbctm.com.au/coalchain/charges.aspx

To assess the hypothetical average cost per tonne for alternative export pathways, we have considered:

- **Cost per tonne at Wiggins Island Coal Terminal:** we estimated a total port charge to export through the Wiggins Island Coal Terminal based on a range of port charges provided by individual users of the DBCT User Group.
- **Cost per tonne at Abbot Point Coal Terminal:** we estimated a total port charge to export through the Abbot Point Coal Terminal based on a range of port charges provided by individual users of the DBCT User Group.
- **Incremental above and below rail costs:** to allow comparison to the current DBCT capacity and incremental expansion options, we have included incremental rail charges, as the additional cost per tonne incurred to rail coal to alternative ports instead of DBCT, as part of the analysis of the viability of alternative export pathways. The estimated total incremental rail cost is based on a range of charges provided by various individual users of the DBCT User Group with reference to existing operations.

The cost of the existing terminal

Table 8 details the RAB, Annual Revenue Requirement (ARR) and Terminal Infrastructure Charge (TIC) for DBCT per the 2017 Draft Access Undertaking.

Table 8: Cost of the existing terminal

Year	2016/17	2017/18	2018/19	2019/20	2020/21
Regulatory Asset Base ($m)					
Opening Asset Value	$2,371.08	$2,335.59	$2,298.32	$2,259.82	$2,220.36
Indexation	$47.42	$46.71	$45.97	$45.20	$44.41
Nominal depreciation	$82.91	$83.98	$84.47	$84.65	$83.35
Closing Asset Value	$2,335.59	$2,298.32	$2,259.82	$2,220.36	$2,178.42
Annual Revenue Requirement (ARR)	**$191.78**	**$ 192.14**	**$ 191.58**	**$190.65**	**$192.86**
Tonnes	78,700,000	78,700,000	78,700,000	78,700,000	78,700,000
TIC ($/tonne)	**$2.3765**	**$2.4414**	**$2.4344**	**$2.4224**	**$ 2.4506**

Source: Queensland Competition Authority (2016) Final Decision: 2015 Draft Access Undertaking, available at: ww.qca.org.au/getattachment/081401b3-903e-4aea-b9fd-9da8e544cf94/Secondary-Undertaking-Notice—Attachment—QCA-decisi.aspx

The QCA has since approved the inclusion of $8.8 m into the DBCT RAB, revenues and tariffs to reflect costs incurred by DBCTM for expansion studies, consistent with the terms of the 2017 Access Undertaking. The 2017/18 reference tariff is outlined in Table 9.

Table 9: 2017/18 ARR and reference tariff

Year	2017/18
ARR ($m)	$198.13
Tonnes (mt)	78.70
TIC ($/tonne)	**$2.5175**

Source: DBCTM (2017) *DBCT Review Event – Change in Reference Tonnage,* available at: http://www.qca.org.au/getattachment/3dea0463-8fc2-4587-aaa8-7e4abede70ca/QCA%E2%80%94Reference-Tonnage-Review-Event.aspx

New access agreements for capacity were executed at DBCT, resulting in an annual increase of 1.6 mtpa commencing on 1 April 2018. **The revised TIC to apply from 1 April 2018 $2.4674/tonne.** Incorporating the increased tonnage brings the total annual reference tonnage for DBCT to 79,100,000 tonnes per annum. Given this is lower than the DBCT nameplate capacity, the TIC does not reflect the full capacity of the Terminal. As a result, we have scaled the TIC to reflect the nameplate capacity, per Table 10, and used this as the reference for our options analysis.

Table 10: FY18 TIC based on nameplate capacity of DBCT

Year	2017/18
ARR ($m)	$198.13
Tonnes (mt)	85.00
TIC ($/tonne)	**$2.3309**

Source: PwC analysis

The cost of the incremental expansions to DBCT

There are a number of expansion options identified in the 2017 DBCT Incremental Expansion Study DAAU to build capacity at DBCT. These include[66]:

1 **Zone 4**: the Zone 4 expansion project involves building a new stacker and conveyor on Row 8, the replacement of RL2 and the completion of Row 8 and vertical western wall. The expansion project would increase overall system capacity to 89 mtpa.

2 **Project 8X**: project 8X expansion project involves a stockyard augmentation project along with upgrades to existing stackers, ST1 and ST2, and to existing conveyors. It also involves the construction of a new rail receival pit, inloading system and a new berth. Project 8X would increase capacity at DBCT to 100 mtpa.

3 **Project 9X**: project 9X is intended to be implemented over three phases. Project 9X involves building an additional stockyard at Louisa Creek, building an additional outloading system and upgrading the existing inloading system, Inloading 1. Project 9X would increase capacity at DBCT to 135 mtpa.

We understand the expansion projects are dependent upon one another, e.g. that project 8X requires Zone 4 works to be completed.

66 DBCTM (2017) *DBCT Incremental Expansion Study,* available at: http://www.qca.org.au/getattachment/f1ab7119-6909-4260-b150-f181be4a87b3/DBCTM%E2%80%94Expansion-Study-DAAU-submission.aspx

The capital cost estimates for Zone 4, Project 8X and Project 9X are detailed in Table 11. The original capital cost estimates and the assumptions applied to calculate these estimates as at June 2017 are detailed in Appendix A.

Table 11: Terminal expansion capital cost estimates, as at June 2017

Incremental expansion project	Cost ($million)	Incremental capacity (mtpa)
Zone 4	$360.2	4
Project 8X	$496.8	11
Project 9X	$2,877.7	35

Source: PwC analysis, DBCTM (2017) *DBCT Incremental Expansion Study*, available at: http://www.qca.org.au/getattachment/f1ab7119-6909-4260-b150-f181be4a87b3/DBCTM%E2%80%94Expansion-Study-DAAU-submission.aspx

New terminal options

This option contemplates the cost building a new terminal. The QCA's *Declaration reviews: applying the access criteria*[67] states access criterion (b) requires assessment of the cost at which foreseeable demand could be met by facilities that will, or are likely to be, operational over the proposed declaration term. Our analysis of total foreseeable demand suggests that it is unlikely that future demand will be sufficiently high to require the capacity offered by duplication of the Terminal. However, we have included this option as part of our analysis to assess whether a single facility is the least cost option when compared to two or more facilities, even if a materially higher foreseeable demand than that derived from a series of credible demand projections) was assumed.

To estimate the cost of duplicating the Terminal, we have relied on an unpublished 2012 concept study by Beca, undertaken for North Queensland Coal Terminal Group and provided to us by the User Group that estimated the cost of developing the Dudgeon Point Coal Terminal (DPCT)[68] at the Port of Hay Point,[69] with a nominated terminal capacity of 90 mtpa. We have considered the construction of stage 1 of DPCT that would offer an additional 30 mtpa of capacity, as well as the construction of the full terminal.

The capital cost estimates, as at June 2017, of these DPCT options are outlined in Table 12.

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67 QCA (2018) *Declaration reviews: applying the access criteria*, available at: http://www.qca.org.au/getattachment/3d21a810-6838-4492-b60e-e4a9d23f32ff/Declaration-Review-Staff-Issues-Paper.aspx

68 The Dudgeon Point terminal cost estimates relate to the cost of constructing the terminal only, and do not incorporate the costs of constructing the required rail network to service the facility.

69 We note that the legislation regulating the disposal of capital dredging materials has changed since the cost estimates were calculated, which is likely to effect the estimates that were established in 2012.

Table 12: Capital cost estimates of Dudgeon Point Coal Terminal

Incremental expansion project	Cost ($million) as at June 2017	Incremental capacity (mtpa)
Dudgeon Point, stage 1	$4,044.4	30
Dudgeon Point, full terminal	$7,938.5	90

Source: PwC analysis, Beca (2012) Dudgeon Point (90Mtpa) Coal Terminal Concept Study, unpublished.

Modelling results

The following results are based on our analysis of the defined options to service notional future demand for coal handling services at DBCT using current estimates of expansion cost and forecast demand as described in sections 3.4.1, 3.4.2 and 3.4.3 of this report.

The analysis focuses on a *comparative* cost assessment of each option. Although results are presented as an 'average cost' under each option, this should not be relied upon as an indicator of actual future cost outcomes. In addition, the analysis does not contemplate how the expansion options (both greenfield and brownfield) would translate into the Terminal Infrastructure Charge (TIC) levied on users of the Terminal.

The derivation of the estimated cost per tonne of each incremental expansion option is outlined in Appendix A. Additional modelling results are outlined in Appendix B.

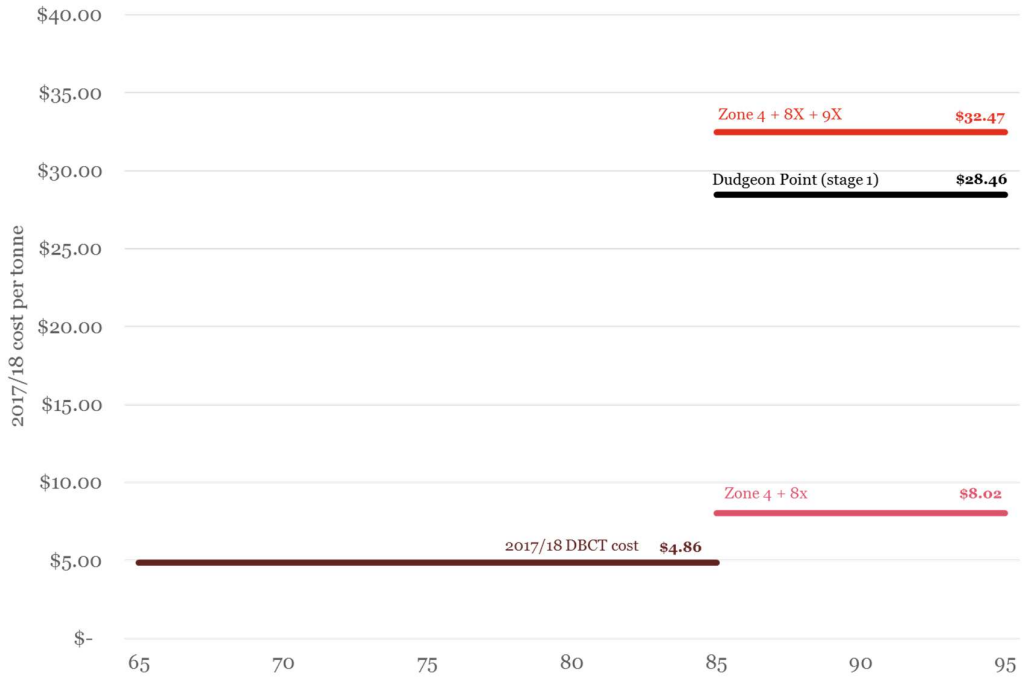
Figure 6 reflects the FY18 cost of incremental expansion options, scaled to reflect the proportion of the capacity to be used under each option. That is, the FY18 cost per tonne has been scaled to reflect the extent to which total expansion costs would need to be recovered from incremental demand, where this is less than the capacity made available by the expansion. The Dudgeon Point (full terminal) has been excluded due to its comparatively high cost per tonne when scaled to be recovered against incremental demand (giving a levelised cost of $53.42 per tonne).

All incremental expansion options to the Terminal, except for Zone 4 as a standalone project, could deliver 95 mtpa of capacity at a FY18 cost between $8.02 per tonne and $32.47 per tonne. The combined Zone 4 and 8X project is the least cost option to support demand of 95 mtpa, with a FY18 cost of $8.02 per tonne. The consolidated Zone 4 and 8X expansion project is approximately 72 per cent lower than the next least cost option of Dudgeon Point (stage one), with a FY18 cost of $28.46 per tonne.

DBCTM's 2016 Master Plan supports this view, observing that 'a further expansion of DBCT is a cost competitive solution for northern and central Bowen Basin mines, notwithstanding the spare capacity reportedly available at Wiggins Island and Abbot Point. DBCT's cost advantage exists due to its proximity and relatively lower total freight cost.'[70]

[70] DBCTM (2016) *DBCT Management – Master Plan 2016, Expansion Opportunities at the Dalrymple Bay Coal Terminal,* available at: http://www.dbctm.com.au/aboutdbct/masterplan.aspx

Figure 6: FY18 cost per tonne of incremental expansion options, scaled to capacity requirement (95 mtpa)



Source: PwC analysis

Cost of alternative export pathways

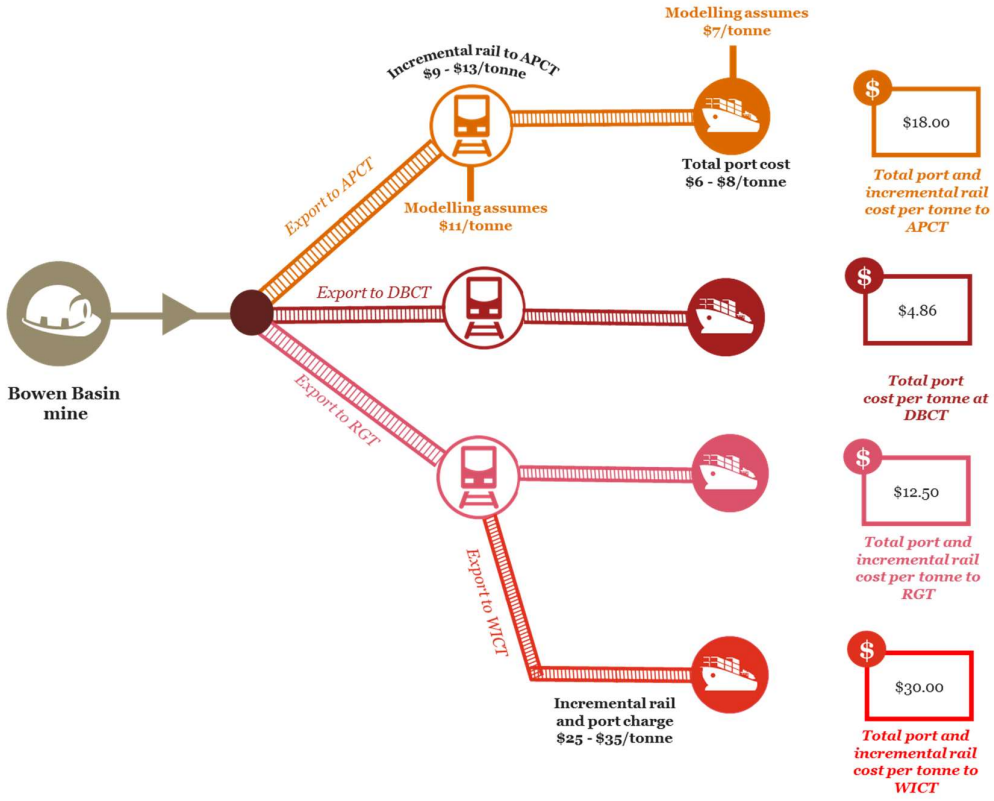
Access seekers could consider using alternative pathways to export Bowen Basin coal to meet future capacity requirements. While it is apparent that alternative export pathways are highly unlikely to be sought out by DBCT users due to there being significant contractual, commercial and other barriers that constrain the viability of substitution (refer section 3.2.3) between DBCT and alternative export pathways, such that we consider the services provided by other terminals are in a different market to those provided by DCBT, we have included these in our comparative analysis for completeness only.

We have estimated the total incremental rail and port cost per tonne of alternative export pathways based on a range of charges provided by individual users of the DBCT User Group, and other public domain information. Our estimates include the additional rail costs that would be incurred if capacity was shifted from DBCT to an alternative export pathway. The ranges we have considered in developing our estimates are detailed in Figure 7.

The modelling assumes a total incremental rail and port charge of $30 per tonne, $18 per tonne and $12.50 per tonne is applied at WICT, APCT and RGT, respectively.[71] There is no reported information regarding the available capacity at RG Tanna. For the purposes of our analysis, we have assumed ten mtpa is available to be contracted.

[71] Incremental rail and port charges were derived from commercial-in-confidence information provided by various member companies represented by the DBCT User Group, and from other public references. Both above- and below-rail costs obviously are significantly impacted by mine location, and hence haulage distance. Benchmark ranges reflect incremental costs for those mines for which an alternative export pathway might potentially be considered; for instance, northern-most mines may consider Abbot Point, whilst mines further south may consider Gladstone.

Figure 7: Calculation of cost of alternative export pathways for existing DBCT users



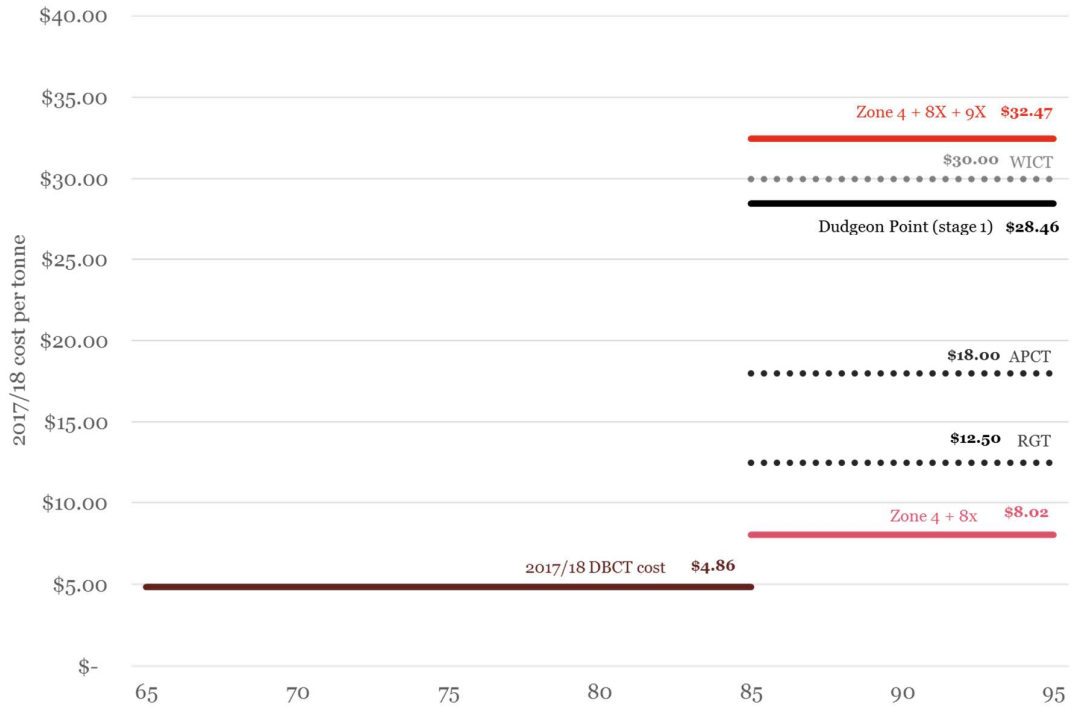
Source: PwC, based on confidential information provided by individual members of the DBCT User Group
Note: the default pathway assumption to DBCT assumes that the user has existing contracted access to both port and rail. The above/below rail costs incurred to haul coal from mine site to DBCT are not considered as part of the total port cost per tonne.

Figure 8 reflects the FY18 cost per tonne of incremental expansion options, terminal duplication options and alternative export pathways options to service foreseeable demand, scaled to the capacity requirement. It excludes the construction of the full Dudgeon Point terminal given the very high cost per tonne of that option for small capacity requirements.

The combined Zone 4 and 8X project remains the least cost option to service 95 mtpa, with a FY18 cost of $8.02 per tonne. The consolidated Zone 4 and Project 8X expansion project is approximately 36 per cent lower than the next cost option of seeking access to the existing RG Tanna terminal. This assumes there is capacity available to be contracted at the alternative terminal, and an ability to access below and above rail capacity.

In addition, the cost of transferring capacity to the RG Tanna terminal is likely to be understated, as we have not considered the cost of any expansions to the existing rail network that would be required to facilitate the transfer.

Figure 8: FY18 cost per tonne of options to service foreseeable demand, scaled to capacity requirement



Source: PwC analysis
Note: there are no reported available capacity figures for RGT. For the analysis above, we have assumed that 10 mtpa of capacity is available at that terminal.

Based on this analysis, even considering a scenario where there is a material increase in demand triggering the need for additional capacity within the relevant market for DBCT's services, an incremental expansion to the existing facility remains the least cost option to meet foreseeable demand.

3.5.3 Conclusion on criterion (b)

A single facility is the least cost option for servicing total foreseeable demand at the Terminal over the assumed declaration period

The extent of substitutability defines the boundaries of the relevant market. The extent of substitutability between DBCT and alternative coal terminals is very limited due to material incremental cost differences, capacity and contractual constraints at alternative terminals and within the existing rail network. The switching of capacity between DBCT and other coal terminals is also limited by the significant costs of early termination of existing contractual agreements, as well as the significant capital expenditure that is necessary to increase capacity within the existing rail infrastructure.

Geographic factors, which result in typically longer haulage distances between relevant mine sites and coal terminals, lead to increased above- and below- rail costs for users seeking export pathways other than through DBCT. In addition, even assuming that capacity at other ports could be accessed, different terminals have port charges which may be materially higher than those offered at DBCT.

This finding was supported by the ACCC in its assessment of the impact on the Goonyella supply chain resulting from Brookfield Consortium's proposed acquisition of Asciano Limited. The ACCC noted that the ports of Gladstone and Abbot Point did not constitute close substitutes to the DBCT Terminal, due to the capacity constraints at the terminals and connecting rail networks, the underlying contractual arrangements that underpin access and the non-electrified nature of the Newlands rail system.

DBCTM's own view of future demand to 2029 remains below the Terminal's nameplate capacity. This forecast is corroborated by analysis prepared by resources industry analyst, Woodmac, and indicates that the existing terminal facility is the least cost option for meeting foreseeable demand.

Even when adopting a notional future demand scenario which requires a material increase in capacity, an expanded single facility, DBCT, remains the least cost solution.

4 Access criterion (c)

Criterion (c): that the facility for the service is significant, having regard to its size or its importance to the Queensland economy

4.1 Assessing the facility's significance

The QCA Act does not define how an infrastructure facility is to be assessed for state or national significance.

The QCA's *Declaration reviews: applying the access criteria* paper highlights that the QCA may have regard to the physical size and capacity of the facility, as well as the importance of the facility to the state economy, such as the contribution of the facility to employment, state GDP and its contribution to exports[72].

In assessing whether a facility is nationally significant, the NCC has indicated it would have regard to similar considerations, namely:

- the size of the facility in terms of its physical footprint, capacity and investment value, amongst other characteristics, or
- the importance of the facility to constitutional trade or commerce, which may be within or external to Australia, and could be measured by the monetary value of trade that is dependent upon the facility, or
- the importance of the facility to the national economy, which is assessed in terms of whether access would materially promote competition.[73]

The facility must only satisfy one of these three considerations to satisfy access criterion (c) under the *Competition and Consumer Act 2010*.

There are a range of other factors that could be considered in determining whether an infrastructure facility is of state or national economic significance. These include:

- the contribution of the facility to economic growth or employment levels,
- the impact of the facility on the State budget or State revenue,
- the contribution of the facility to the development of key sectors, and
- the contribution of the facility to upstream and downstream markets, particularly in terms of the facility's impact on competition.

Whether a facility satisfies criterion (c) is entirely dependent upon the facility and the service the facility provides. Table 13 details case studies demonstrating the difference in national significance assessments undertaken by the NCC.[74]

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[72] QCA (2018) *Declaration reviews: applying the access criteria*, available at: http://www.qca.org.au/getattachment/3d21a810-6838-4492-b60e-e4a9d23f32ff/Declaration-Review-Staff-Issues-Paper.aspx

[73] National Competition Council (2017) Declaration of services: a guide to declaration under Part IIIA of the Competition and Consumer Act 2010 (Cth), available at: http://ncc.gov.au/images/uploads/Declaration_Guide_2017.pdf

Table 13: Regulatory precedent, assessing the public interest

Year	Service for which declaration was sought	Relevant legislation	Commentary
2016	Services offered by Port of Newcastle shipping channel	*Competition and Consumer Act 2010*	In responding to the criteria of Section 44G(2)(c) of the CCA, whether the facility is significant with regard to the size of the facility, the importance of the facility to constitutional trade or commerce, or the importance of the facility to the national economy, Glencore's application for the declaration for the services offered by the Port of Newcastle Shipping Channel emphasised: • the size of the facility, noting it is the largest coal export port in Australia and one of largest in the world, with 4,600 ship movements per annum, its ability to accommodate capsize vessels and its total land holdings of 792 hectares. • The importance of coal exports to the Australian economy as Australia's second most valuable export after iron ore, and the Hunter Valley coal chain's contribution to that. Approximately 90 per cent of NSW's saleable coal and 40 per cent of Australia's saleable coal is produced within the Hunter Valley coal chain. Glencore submitted that the Port of Newcastle handled 159.6 mt in trade throughput in 2013/14 totalling $15.5 billion in value. This coal was exported to 16 countries, with approximately 90 per cent of exports going to China, Japan, South Korea, and Taiwan. • The contribution of the coal industry to employment in the Hunter Valley and the NSW economy more broadly. The application noted that the mining industry employed more than 40,000 people statewide, paid $1.3 billion in royalties to the state government and accounted for 31 per cent of total NSW exports in 2012/13. Within the Hunter Valley, the sector directly generated 28 per cent of gross regional product in 2013/14, employing 11,078 people directly and a further 58,904 indirectly. In January 2016, the Minister rejected Glencore's application for declaration of the service, though, the significance of the facilities to trade and commerce was not disputed in the Minister's Statement of Reasons. In concluding that the facilities were of national importance, the Minister determined that the volume of trade through of the Port, the importance of coal to Australian exports, the contribution of the facility to the Hunter Valley and NSW economies and the lack of submissions challenging the significance were of particular materiality. The Minister's conclusions were not challenged in subsequent appeals through the Australian Competition Tribunal (ACT) and the Federal Court of Australia. In August 2017, the Federal Court upheld the ACT's decision to set aside Minister's decision, declaring the service until July 2031.[75]

[74] National Competition Council (2017) *Declaration of services: a guide to declaration under Part IIIA of the Competition and Consumer Act 2010 (Cth)*, available at: http://ncc.gov.au/images/uploads/Declaration_Guide_2017.pdf

[75] Australian Treasury (2016) *Decision and Statement of Reasons concerning Glencore Coal Pty Ltd's application for the declaration of the shipping channel service at the Port of Newcastle*, available at: http://ncc.gov.au/images/uploads/DEPONSR-001.pdf; Federal Court of Australia (2017) *Port of Newcastle Operations Ltd v Australian Competition Tribunal [2017] FCAFC 124*, available at: http://www.judgments.fedcourt.gov.au/judgments/Judgments/fca/full/2017/2017fcafc0124

Year	Service for which declaration was sought	Relevant legislation	Commentary
2010	Access to various Pilbara railways	*Trade Practices Act 1974*	The NCC has assessed four applications, each under the Trade Practices Act 1974, for the declaration of Pilbara railways. The NCC recommended that if the services were declared, a term of 20 years would be appropriate for each service. Following a series of reviews and appeals to the Australian Competition Tribunal and the Federal Court, only the Goldsworthy Railway Services holds declared status. The applications for declaration, filed by Fortescue Metals Group Ltd, submitted the following features made each railway service nationally significant: • the length of the railway, the cost of replicating the railway (besides the Mount Newman application) • the capacity of the railway • the importance of iron ore exports to the Pilbara region, West Australia, and Australia. The NCC was satisfied that each of the Pilbara Railways satisfied Section 44G(2)(c) of the Trade Practices Act, that being national significance.[76]
2006	Services offered by Sydney and Melbourne International Airports	*Competition and Consumer Act 2010*	The NCC assessed the national significance of the Sydney and Melbourne international airports in terms of the location of the facilities as well as: • the airports' strategic importance in the international air freight train • the volume and value of international trade that depends on the facility • the implications for the performance of industries that rely on international air freight. The NCC found that the facilities gained greater economic significance as a consequence of their colocation with the associated facilities of the airports. The role of the Sydney International Airport was found to have 'predominant and pervasive' commercial relationships to the rest of the world, evidenced by the value of freight movements through the airport, as well as the volume of passenger traffic.[77]

[76] High Court of Australia (2016) *The Pilbara Infrastructure Pty Ltd v Australian Competition Tribunal; The Pilbara Infrastructure Pty Ltd v Australian Competition Tribunal; The Pilbara Infrastructure Pty Ltd v Australian Competition Tribunal; The National Competition Council v Hamersley Iron Pty Ltd; The National Competition Council v Robe River Mining Co Pty Ltd; [2012] HCA 36*, available at: http://ncc.gov.au/images/uploads/DERaFoHC-001.pdf

[77] National Competition Council (2017) Declaration of services: a guide to declaration under Part IIIA of the Competition and Consumer Act 2010 (Cth), available at: http://ncc.gov.au/images/uploads/Declaration_Guide_2017.pdf

Year	Service for which declaration was sought	Relevant legislation	Commentary
2010	Service provided by the Herbert Cane railway	*Trade Practices Act 1974*	The NCC assessed the Herbert River cane railway in terms of the length of the track, the size of the network the railway serviced, the number of cane farmers that utilised the network and the size of the community that fell within the geographical boundaries of the Herbert River railway network. The NCC found that since the Herbert River network was a radial network, the actual maximum haulage distance on the largest section of the track was only 60 kilometres. The railway serviced approximately 575 cane growers over an area of approximately 55,000 hectares. The network fell within the Hinchinbrook Shire that had a population of approximately 12,000 people. On this basis, the NCC found that the Herbert River cane railway was not a facility of national economic significance.[78]

While access criterion (c) is concerned with whether the facility is significant, we consider it important also to consider whether the coal trade that is facilitated by DBCT is significant (both in terms of volume and revenue). This can be assessed by comparing the coal trade facilitated by other coal terminals in Queensland. The size of the coal trade facilitated by the Terminal provides an indication of whether the coal handling services at DBCT are significant in sustaining the Queensland coal export market.

4.2 The Queensland coal trade

As at the end of 2016, Australia had approximately 12.7 per cent of the world's total proved coal reserves (approximately 144,818 million tonnes) and is the third largest producer of coal.[79] Australia is the largest exporter of metallurgical coal in the world with 60 per cent of global exports in 2016[80] and the second largest exporter of thermal coal.[81]

Figure 9 outlines Australian saleable black coal production over the period 2012/13 to 2016/17. Over the period 2012/13 to 2016/17, black coal production grew by approximately 11 per cent nationally, predominantly driven by growth in Queensland. Over the period 2012/13 to 2016/17, Queensland's black coal production grew by approximately 17 per cent to 237 mtpa. Over the same period, the coal production in New South Wales grew by 7 per cent to 198 mtpa.

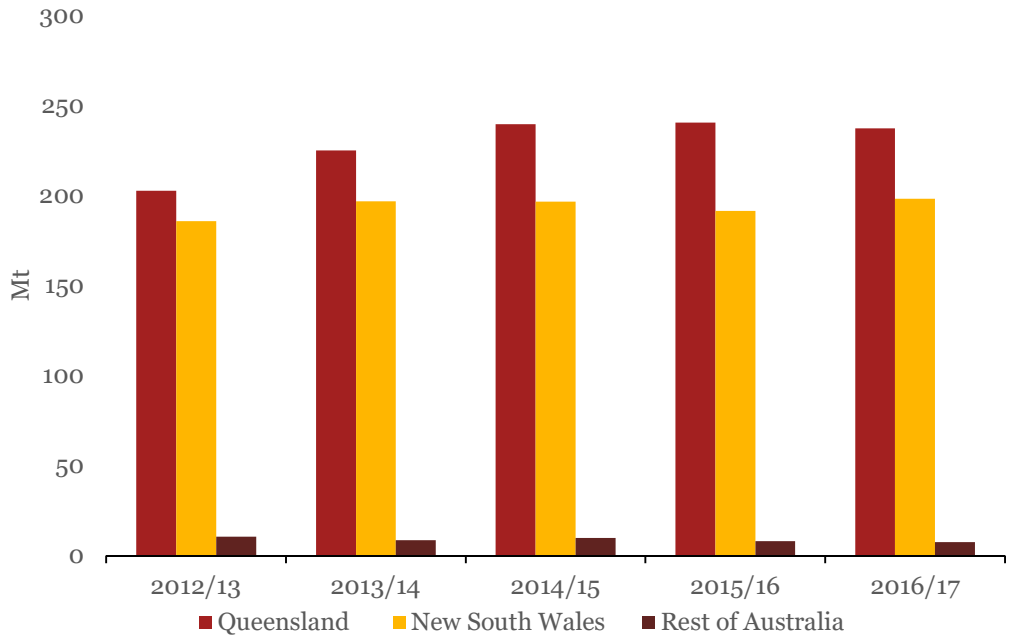
[78] National Competition Council (2017) Declaration of services: a guide to declaration under Part IIIA of the Competition and Consumer Act 2010 (Cth), available at: http://ncc.gov.au/images/uploads/Declaration_Guide_2017.pdf

[79] Geoscience Australia (2018), *Australian Energy Resources Assessment – Coal*, available at: http://aera.ga.gov.au/#!/coal

[80] Australian Government, Department of Industry, Innovation and Science (2018) *Metallurgical Coal – Resources and Energy Quarterly March 2018*, available at: https://www.industry.gov.au/Office-of-the-Chief-Economist/Publications/ResourcesandEnergyQuarterlyMarch2018/documents/Resources-and-Energy-Quarterly-March-2018-Met-Coal.pdf

[81] Australian Government, Department of Industry, Innovation and Science (2018) *Thermal Coal – Resources and Energy Quarterly March 2018*, available at: https://www.industry.gov.au/Office-of-the-Chief-Economist/Publications/ResourcesandEnergyQuarterlyMarch2018/documents/Resources-and-Energy-Quarterly-March-2018-Thermal-Coal.pdf

Figure 9: Australian saleable black coal production (mtpa), 2012/13 to 2016/17



Source: Australian Government, Department of Industry, Innovation and Science (2018) *Resources and Energy Quarterly March 2018*, available at: https://www.industry.gov.au/Office-of-the-Chief-Economist/Publications/ResourcesandEnergyQuarterlyMarch2018/index.html

Queensland contains approximately 12 billion tonnes of proved and probable coal reserves and is the largest exporter of metallurgical coal in the world.[82] The vast majority of Queensland's coal reserves are spread across six basins throughout the state, with the Bowen Basin being the only region that produces metallurgical coal.[83]

Coal exports are a significant contributor to the Queensland economy, valued at approximately $36.3 billion in 2016/17.[84] The coal industry employed approximately 21,218 full time employees in 2016/17, and had a flow-on impact to employment of approximately 168,777 people.[85] The coal industry contributed approximately $11.2 billion spend on goods and services, and community contributions in 2016/17.[85]

Coal royalties contributed approximately $3.4 billion to the Queensland budget in 2016/17, which represents approximately six per cent of total state government revenue.[86] By comparison, royalties from the petroleum, base and precious metals, and other mineral

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82 Queensland Government, Department of Natural Resources and Mines (2017) *Minerals and Energy Resources: outlook profile for Queensland's priority commodities*, available at: https://www.dnrm.qld.gov.au/__data/assets/pdf_file/0018/1226052/metallurgical-coal-outlook-profile.pdf

83 Queensland Government, Department of Natural Resources and Mines (2017) *Minerals and Energy Resources: outlook profile for Queensland's priority commodities*, available at: https://www.dnrm.qld.gov.au/__data/assets/pdf_file/0018/1226052/metallurgical-coal-outlook-profile.pdf

84 Queensland Government, Department of Natural Resources and Mines (2017) *Total value of exports per year*, available at: https://data.qld.gov.au/dataset/coal-industry-review-statistical-tables/resource/fccfc461-7673-4d4b-a03f-321314501edb

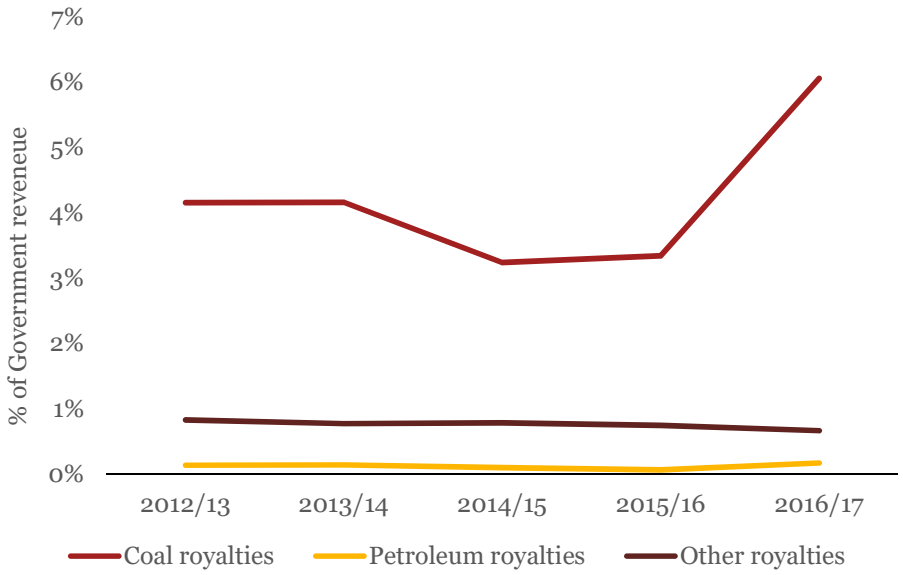
85 Queensland Resource Council (2017) *What is Queensland's coal industry worth to Queensland?*, available at: https://www.qrc.org.au/wp-content/uploads/2016/10/2017_Coal_Contributions.pdf

86 Queensland Treasury (2017) *Queensland Budget - Mid-year fiscal and economic review*, available at https://s3.budget.qld.gov.au/budget/papers/2017-18MYFER.PDF

royalties totalled $0.47 billion (0.8 per cent of total government revenue) in the same period.[87]

Coal royalties have contributed the greatest proportion of royalties compared with other commodity types, averaging approximately $2.1 billion per year over the period 2012/13 to 2016/17. The price of high quality metallurgical coal increased significantly between 2015/16 to 2016/17 from $111/tonne to $224/tonne,[88] leading to the significant increase in coal royalties, as shown in Figure 10.

Figure 10: Contribution to Queensland State budget, 2012/13 to 2016/17[89]



Source: compiled from Queensland Treasury budget papers for 2014/15 to 2017/18.

Queensland's coal exports by coal type over the period 2012/13 to 2016/17 are shown inFigure 11. Over this period, Queensland metallurgical coal exports increased from approximately 129 mtpa to 149 mtpa. Metallurgical coal exports accounted for approximately 82 per cent of the value of all coal exports over the period 2012/13 to 2016/17.[90]

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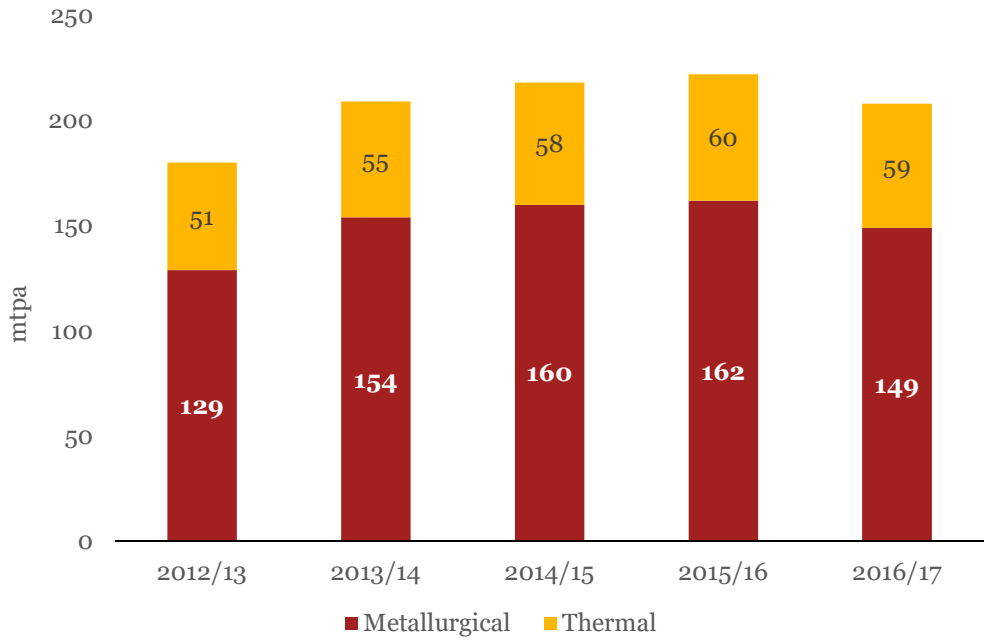
87 Australian Government, Department of Industry, Innovation and Science (2018) *Resources and Energy* Quarterly *(March 2018)*, available at: https://www.industry.gov.au/Office-of-the-Chief-Economist/Publications/ResourcesandEnergyQuarterlyMarch2018/index.html

88 Australian Government, Department of Industry, Innovation and Science (2018) *Resources and Energy* Quarterly *(March 2018)*, available at: https://www.industry.gov.au/Office-of-the-Chief-Economist/Publications/ResourcesandEnergyQuarterlyMarch2018/index.html

89 Queensland Treasury (2014) *Queensland Budget 2014-15 Budget Strategy and Outlook Budget Paper No.2 2014-15*, available at: https://s3.treasury.qld.gov.au/files/bp2-2014-15.pdf, Queensland Treasury (2015) *Queensland Budget 2015-16 Budget Strategy and Outlook Budget Paper No.2 2015-16*, available at: https://s3.treasury.qld.gov.au/files/state-budget-2015-16-bp2.pdf, Queensland Treasury (2016) *Queensland Budget 2016-17 Budget Strategy and Outlook Budget Paper No.2 2016-17*, available at: https://s3.treasury.qld.gov.au/files/bp2-2016-17.pdf, Queensland Treasury (2017) *Queensland Budget, Mid-year fiscal and economic review 2017-18*, available at: https://s3.budget.qld.gov.au/budget/papers/2017-18MYFER.PDF

90 Queensland Government, Department of Natural Resources and Mines (2017) Total value of exports per year, available at: https://data.qld.gov.au/dataset/coal-industry-review-statistical-tables/resource/fccfc461-7673-4d4b-a03f-321314501edb

Figure 11: Queensland coal exports by type of coal (mtpa), 2012/13 to 2016/17



Source: Queensland Government, Department of Natural Resources and Mines (2017) *Queensland exports by coal type ('000 tonnes)*, available at https://data.qld.gov.au/dataset/coal-industry-review-statistical-tables/resource/6a4b92fc-b277-40d2-af6c-26ea14cad6f6

4.3 Assessing the significance of DBCT

4.3.1 DBCT's importance to the coal export market

The terminal at DBCT has approximately 36.6 hectares of stockpile space and stretches 6.2km from the wharves to the rail loading stations. The facility includes four berths, three rail receiving stations, four stackers, three reclaimers, five stacker-reclaimers, eight stockpile rows and three outloading systems. DBCT is a major employer within the Mackay region, with 300 people employed by the Terminal operator, as well as over 100 contractors and consultants also on site.[91]

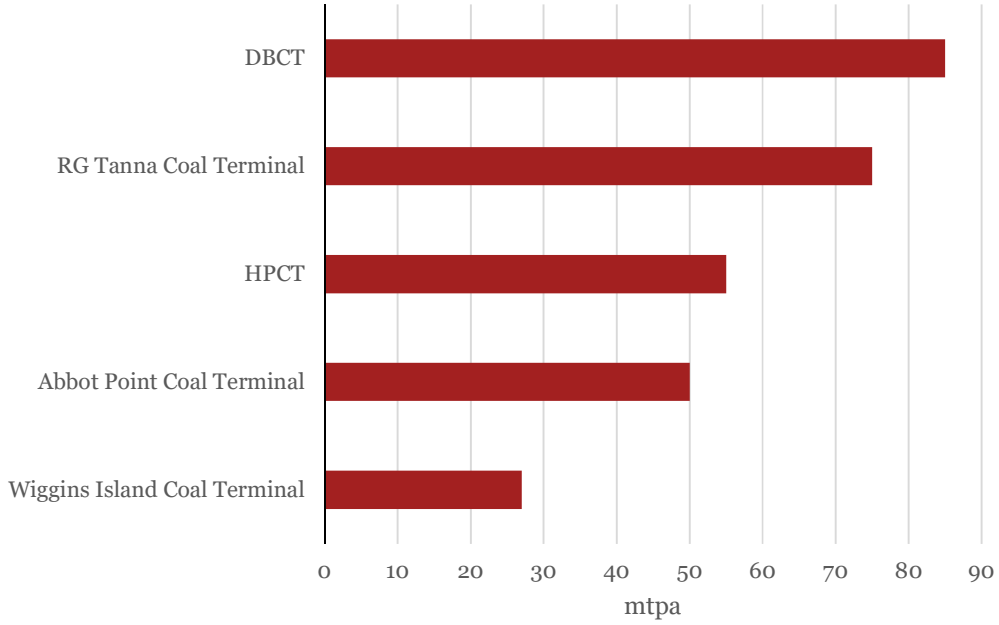
DBCT is Queensland's largest coal terminal with a nameplate capacity of 85 mtpa. The RG Tanna Coal Terminal located at the Port of Gladstone is Queensland's second largest coal port, as shown in Figure 12.

Under the *Queensland Ports Strategy,* the Queensland Government has identified the Port of Hay Point as a Priority Port Development Area.[92] Under the *Sustainable Ports Development Act 2015,* dredging in the Great Barrier Reef World Heritage Area for port construction or expansion is prohibited, with the exception of Priority Port Development Areas.

[91] Dalrymple Bay Coal Terminal Pty Ltd, *Our People (2018),* available at: http://www.dbct.com.au/employment

[92] Queensland Government, Department of State Development, Infrastructure and Planning (2015) *Queensland Ports Strategy – Frequently Asked Questions*, available at: http://statedevelopment.qld.gov.au/resources/factsheet/qps-faq.pdf

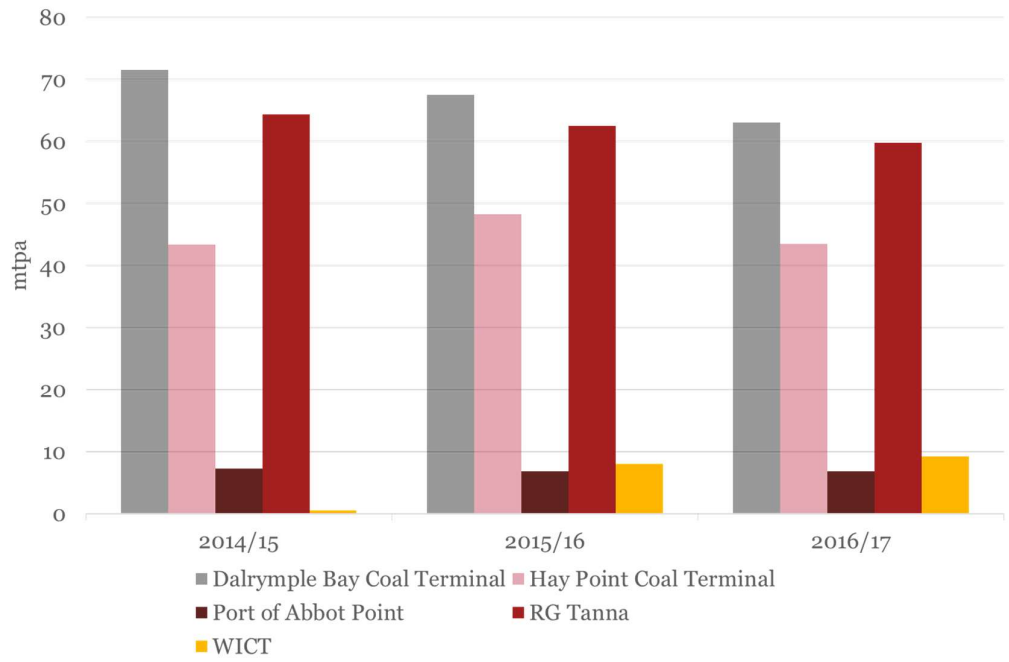
Figure 12: Nameplate capacity of Queensland coal export terminals



Source: North Queensland Bulk Ports (2016), *Port of Hay Point Operations Manual,* available at: https://nqbp.com.au/__data/assets/pdf_file/0013/3280/Port-of-Hay-Point-Operations-Manual-2016-2017.pdf, North Queensland Bulk Ports (2016), *Port of Abbot Point Operations Manual,* available at: https://nqbp.com.au/__data/assets/pdf_file/0020/3278/Port-of-Abbot-Point-Operations-Manual-2016-2017.pdf, WICET (2018), *Access*, available at: http://www.wicet.com.au/irm/content/access1.aspx?RID=379, Queensland Government, Department of State DEvelopmenthttp://statedevelopment.qld.gov.au/resources/plan/ports/draft-master-plan.pdf

Figure 13 shows that DBCT handled 31 per cent of Queensland's total coal exports in 2016/2017. Actual throughput at DBCT is comparable to the combined throughput handled at the RG Tanna and Wiggins Island coal terminals at the Port of Gladstone, demonstrating DBCT's significance in the Queensland coal export market. Hay Point Coal Terminal, Abbot Point and Brisbane handled approximately 21 per cent, 12 per cent and 3 per cent, respectively, over the same period.

Figure 13: Coal exports at Queensland ports, 2014/15 to 2016/17



Source: NQBP (2018) *Throughputs,* available at: https://nqbp.com.au/trade/throughputs, Gladstone Ports Corporation (2016), *Annual Report 2015-2016*, available at: http://www.gpcl.com.au/SiteAssets/Annual%20Reports/GPC_2015-16_Annual_Report.PDF#search=Annual%20Report%2015%2F16, Gladstone Ports Corporation (2017), *Annual Report 2016/17,* available at: http://www.gpcl.com.au/SiteAssets/Annual%20Reports/GPC_Annual_Report_2016-17.pdf

4.3.2 The contribution of DBCT coal exports to Queensland coal royalties

Given the size and scope of the export trade from DBCT, it is clear that trade through DBCT underwrites a significant proportion of Queensland mining royalties.

Mining royalties are proportionately calculated on the average sale price per tonne of coal in a given year, with a differential rate depending on whether the sale price is above certain value thresholds.

In 2016/17, coal royalties delivered $3.4 billion in revenue to the Queensland Government. We estimates that coal exported through DBCT contributed approximately $1.2 billion.

This estimate is based on estimating the applicable royalty payments under the Queensland Government's *Mineral Resources Regulation 2013* formula,[93] applying actual coal throughput at DBCT,[94] and the average coal price in 2016/17.[95]

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93 Section 5, Schedule 3 of the *Mineral Resources Regulation 2013,* available at: https://www.legislation.qld.gov.au/view/pdf/inforce/2017-09-28/sl-2013-0170

94 North Queensland Bulk Ports Corporation (2018) *Trade*, available at: https://nqbp.com.au/trade/throughputs

95 Australian Government, Department of Industry, Innovation and Science (2018) Resources and Energy Quarterly March 2018, available at: https://www.industry.gov.au/Office-of-the-Chief-Economist/Publications/ResourcesandEnergyQuarterlyMarch2018/index.html

4.3.3 The contribution of the DBCT facility to the Mackay economy

The coal industry is a significant contributor to Mackay's economy. In 2016/17, the coal industry supported 44,969[96] residents within the Greater Mackay region.[97]

In 2016/17, the coal industry underpinned mining and exports which contributed $3.5 billion in direct spending, of which business purchases and community contributions comprised $2.5 billion. The industry also contributed a total of $7.2 billion in indirect value added and consumption-induced value.

Based on a tonnes weighted average,[98] the DBCT facility contributed approximately $2.0 billion to the Mackay economy in total direct spending, of which approximately $1.5 billion was for business purchases and community contributions. The indirect and consumption-induced value added was $4.3 billion in 2016/17. This is equivalent to 23 per cent of the Greater Mackay region's Gross Regional Product (GRP).

4.4 Conclusion on criterion (c)

Having regard to its size and significance to the Queensland economy, DBCT is a significant facility for the purpose of criterion (c)

Coal exports are a significant contributor to the Queensland economy, representing approximately 41 per cent of total exports with a value of approximately $36.3 billion in 2016/17.[99] Metallurgical coal exports represented approximately 80 per cent of the value of Queensland's coal exports.[100]

DBCT is a significant coal terminal in terms of its size. It is Queensland's largest coal terminal and accounted for approximately 31 per cent of total coal exports in 2016/17.

DBCT is also a significant contributor to the State budget, in terms of the coal royalty contributions it supports. In 2016/17, coal exported through DBCT contributed approximately $1.2 billion in coal royalty payments.

We have estimated that in 2016/17, the DBCT facility supported a contribution of approximately 23 per cent to the Greater Mackay region's GRP. This was comprised of a direct contribution of approximately $2.0 billion and an indirect contribution of $4.3 billion.

The Terminal has also been identified as a strategic asset for the economic development of Queensland. Under the *Queensland Ports Strategy,* the Queensland Government has identified the port of Hay Point as a Priority Port Development Area. [101]

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[96] Queensland Resource Council (2017) *Economic Impact of the Minerals and Energy Sector on the Queensland Economy 2016/17,* available at: https://www.qrc.org.au/wp-content/uploads/2016/10/Economic-Impact-of-Resources-Sector-on-Qld-Economy_2016-17-Final-Report.pdf

[97] The QRC defines the Greater Mackay region as the Mackay - Isaac - Whitsunday SA4.

[98] The tonnes weighted average was calculated with reference to the proportion of actual throughput at DBCT and HPCT in 2016/17, as published by the North Queensland Bulk Ports Corporation, available at: https://nqbp.com.au/trade/throughputs

[99] Queensland Government, Department of Natural Resources and Mines (2017) Total value of exports per year, available at: https://data.qld.gov.au/dataset/coal-industry-review-statistical-tables/resource/fccfc461-7673-4d4b-a03f-3213145o1edb

[100] Dalrymple Bay Coal Terminal Pty Ltd, *Our People (2018),* available at: http://www.dbct.com.au/employment

[101] Queensland Government, Department of State Development, Infrastructure and Planning (2015) *Queensland Ports Strategy – Frequently Asked Questions,* available at: http://statedevelopment.qld.gov.au/resources/factsheet/qps-faq.pdf

5 Access criterion (d)

Criterion (d): that access (or increased access) to the service, on reasonable terms and conditions, as a result of a declaration of the service would promote the public interest.

5.1 Defining public interest

The QCA Act does not define how the public interest should be assessed or construed. We expect the Minister would consider a range of factors in determining whether the declaration of services at DBCT, and the access that declaration might facilitate, would promote the public interest. Section 76(5) of the QCA Act requires the Minister to have regard to the following considerations when considering access criterion (d)[102]:

1 *if the facility for the service extends outside Queensland:*

  a *whether access to the service provided outside Queensland by means of the facility is regulated by another jurisdiction, and*

  b *(ii) the desirability of consistency in regulating access to the service,*

2 *the effect that declaring the service would have on investment in—*

  a *facilities, and*

  b *(ii) markets that depend on access to the service,*

3 *the administrative and compliance costs that would be incurred by the provider of the service if the service were declared, and*

4 *any other matter the authority or Minister considers relevant.*

Similar considerations are reflected in subsections 44CA(3)(a) and (3)(b) of the CCA. The NCC's declaration guidelines highlight economic efficiency and competition as key components in the promotion of the public interest.[103]

[102] Section 76 of the QCA Act 1997, available at: https://www.legislation.qld.gov.au/view/pdf/inforce/2018-03-29/act-1997-025

[103] National Competition Council (2017) *Declaration of services: a guide to declaration under Part IIIA of the Competition and Consumer Act 2010 (Cth)*, available at: http://ncc.gov.au/images/uploads/Declaration_Guide_2017.pdf

Clause 1 of the Council of Australian Governments *Competition Principles Agreement 1995* outlines the following considerations that should be assessed as part of considering access criterion (d):[104]

- economic and regional development issues, such as growth in investment and employment,
- the promotion of competition and efficiency in resource allocation,
- the interests of consumers generally, or any specific class of consumers,
- social welfare and equity considerations, such as the availability of goods/services and any community service obligations,
- relevant legislation and government policies that relate to ecologically sustainable development, industrial relations, and occupational health and safety, and
- if the facility extends outside Queensland, whether access is regulated by another jurisdictional regulator, and if consistency in regulating access is advantageous.

5.2 How have public interest considerations been assessed?

In assessing the public interest considerations of proposed declaration regimes, Australian economic regulators have had regard to a range of factors, some of these key considerations are outlined in Table 14.

The NCC has not considered any applications for declaration of services following the amendment of the declaration criteria under the *Competition and Consumer Act 2010*.

Table 14: Regulatory precedent, promoting the public interest

Year	Service for which declaration was sought	Relevant legislation	Commentary
2010	Services offered by the CQCN[105]	*Trade Practices Act 1974*	In issuing its draft recommendation for the declaration of the Central Queensland Coal Network, the NCC determined that it would be contrary to the public interest to declare the service. The NCC considered that increased access to the CQCN as a result of declaration would lead to public benefits as a result of the promotion of greater competition and the prevention of inefficient expenditure on facility duplication. The Queensland Government submitted that declaration of the services would disrupt regulatory uniformity with the Queensland Rail Access Regime and be against the public interest. The NCC determined that the Queensland Rail Access Regime would be the more effective way of facilitating access arrangements, with additional regulatory costs potentially greater than the benefits.

[104] Council of Australian Government (1995) *Competition Principles Agreement,* available at: https://www.coag.gov.au/about-coag/agreements/competition-principles-agreement

[105] National Competition Council (2010) Central Queensland Coal Rail Network – Draft Recommendation, available at: http://ncc.gov.au/images/uploads/DERaQRDR-001.pdf

Year	Service for which declaration was sought	Relevant legislation	Commentary
2012	Services offered by various Pilbara railway track facilities	*Trade Practices Act 1974*	The NCC has assessed declaration applications for four Pilbara railways and on each occasion been satisfied that increased access to the services would not be contrary to the public interest. The Australian Competition Tribunal (ACT) reviewed challenges to the NCC's decisions for the four railways together.[106] In subsequent appeals, Fortescue Metals Group Ltd, the applicant, challenged the ACT's approach in assessing the public interest. The High of Australia established that in assessing applications for declaration, any matter of public interest consistent with the scope and intention of the act may be considered.[107]
	Services offered by Port of Newcastle shipping channel	*Competition and Consumer Act 2010*	In assessing Glencore's application for declaration of the service, the Minister determined that declaring the services offered by the shipping channel would not be contrary to the public interest.[108] In reaching this conclusion, the Minister determined that the additional costs of regulation would not be burdensome, that existing price monitoring regimes would not provide an effective substitute for access arrangements and that increased access would not impact existing arrangements in the Hunter Valley coal chain.

5.3 Application to DBCT

The public interest is generally interpreted by Australian economic regulators to be the effective functioning of markets, while maximising the well-being of citizens and the broader community. Our assessment considers whether declaration of the service would promote or embed the benefits of competitive markets that lead to efficiency gains in the affected market and the broader economy, such as incentives for investment and innovation, and administrative simplicity.

Declaration provides the statutory basis from which access might be sought within a regulatory 'negotiation/arbitrate' framework. Declaration allows access seekers recourse to arbitration, where negotiation is unsuccessful, and through this it provides a level of assurance that access terms are reasonable, transparent, applied in a non-discriminatory way, and are stable and predictable over time.

A facility owner may still provide access to services even where there is no declaration. However, the basis on which access terms would be determined, negotiated, administered and enforced would be governed by whatever contractual arrangements are offered to access seekers.

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[106] Australian Competition Tribunal (2010) *Australian Competition Tribunal – In the matter of Fortescue Metals Group Limited [2010] ACompT 2,* available at: http://ncc.gov.au/images/uploads/DERaFoTD-001.pdf

[107] High Court of Australia (2016) The Pilbara Infrastructure Pty Ltd v Australian Competition Tribunal; The Pilbara Infrastructure Pty Ltd v Australian Competition Tribunal; The Pilbara Infrastructure Pty Ltd v Australian Competition Tribunal; The National Competition Council v Hamersley Iron Pty Ltd; The National Competition Council v Robe River Mining Co Pty Ltd; [2012] HCA 36, available at: http://ncc.gov.au/images/uploads/DERaFoHC-001.pdf

[108] Australian Treasury (2016) *Decision and Statement of Reasons concerning Glencore Coal Pty Ltd's application for the declaration of the shipping channel service at the Port of Newcastle*, available at: http://ncc.gov.au/images/uploads/DEPONSR-001.pdf

Whilst access to DBCT likely would continue even where the services were not declared, it is likely that the terms of access - both price and non-price - would be substantially different. These differences would have potential public interest implications.

Our assessment of whether DBCT satisfies access criterion (d) has referred to:

- *Economic considerations,* such as efficiency gains and incentives for investment and innovation,
- *Administrative considerations,* such as administrative simplicity and transparency, and the cost of regulation,
- *Broader social/community considerations* that may arise from the ongoing declaration of the Terminal, including the safe operation of the service.

5.3.1 Economic considerations

Increased certainty and incentives for investment

Declaration promotes efficient long term investment decisions in the following ways:

- Declaration provides a basis for establishing transparent, common and legally binding terms of access. The transparency of access arrangements, and the recourse available to an independent economic regulator to arbitrate any access disputes, has been a key factor supporting investment in upstream mining ventures in the Goonyella Basin. For new market entrants, in particular, the assurance of an independent economic regulator is significant, enhancing incentives to invest in new or existing projects in the Basin.
- Declaration supports the establishment of an access pricing methodology, which provides long term certainty regarding how prices for terminal related services will be determined. This provides transparency and predictability for coal producers and other industry participants, and flow-on incentives for investment in the coal industry.
- Declaration provides certainty regarding the (non-price) terms of access to the Terminal. For instance, the evergreening renewal options of current access agreements provides certainty that capacity at the Terminal will be available for the life of a user's mine.

For the Terminal manager, DBCT Management, declaration also creates a secure foundation for the recovery of terminal capacity costs, including insulation from variability in returns resulting from year-on-year changes in coal export/contract volumes. Similarly, a clear framework for future expansions has successful supported several previous terminal capacity augmentation initiatives.

Declaration of DBCT also facilitates investment in related rail expansions to ensure there is sufficient capacity within the Goonyella rail network to haul coal from mine site to DBCT to meet export demand. This creates indirect, flow-on effects to the wider regional and state economy and stimulates growth in employment.

Efficiency considerations

Our analysis indicates that a single facility at DBCT is the least cost means of servicing foreseeable demand for coal handling services at DBCT. By retaining the declared status of the Terminal, which provides an access framework that supports efficient pathways for any required capacity expansion, the risk of inefficient terminal duplication and redundant capital investment is significantly reduced.

Since access is currently regulated by a QCA approved Access Undertaking, the costs which comprise the RAB are subject to prudency and efficiency testing. This ensures that there is no incentive for DBCTM to inflate its capital or operating expenditure forecasts, which results in lower prices for existing users and ensures that the cost of access does not become a barrier to entry for access seekers.

5.3.2 Administrative considerations

Declaration allows for continued certainty and transparency regarding the terms of access to the Terminal, with current terms of access reflecting negotiations between DBCTM and users, and approved by the QCA where necessary. In the absence of declaration, any access arrangements contractually offered by DBCTM may not be consistent between users, transparent and could be harder to enforce.

Declaration of the Terminal reduces both the likelihood (as terms are known and common to all users) and the cost of resolving disputes, which are less likely to need to resort to arbitration, and where the regulator resolves access matters, these are common to all users and hence the risk of individual and parallel disputes is addressed..

Administrative costs of regulation, as measured by the QCA levy, would be unchanged by the ongoing declaration of DBCT. The regulatory levy is currently recovered from users as beneficiaries of the existing declaration regime.

Declaration of DBCT simplifies the administrative arrangements for users, as it promotes consistency between the terms of access for the Terminal and other parts of the coal supply chain, including the rail network.

5.3.3 Social and community considerations

Declaration of DBCT would promote a range of broader social and community benefits.

- The QCA has established a process whereby an allowance for remediation costs is included in the DBCT ARR. This results in DBCT collecting funds to undertake future remediation works to restore the site to the necessary environmental conditions at the end of the life of the Terminal. Without declaration, there is no guarantee that these costs would be recovered through port charges, and how the funds would be collected from users.

- Declaration is important for the coal and transport industries, as well as the workforce that is employed in the Mackay region, as it allows for reasonable regulatory oversight of access to Port infrastructure. The ongoing declaration of DBCT is also likely to result in flow-on and indirect economic and employment benefits from investment in the existing facility and related industries.

We are not aware of any safety or national security issues that may be relevant for DBCT that may impact the promotion of the public interest by DBCT's ongoing declaration.

5.4 Conclusion on access criterion (d)

Access to DBCT, as a result of a declaration of the service, would promote the public interest

Declaration supports the public interest as it:

- supports enhanced incentives for investment in the coal mining sector, particular from new market participants for whom an independent economic regulator provides important assurance,
- allows for access terms to be established within a transparent, well-understand and predictable framework, benefiting both users and the facility owner, and
- supports a continuation of current access arrangements which have served the industry well, including important commercial protections to DBCTM (such as insulation from revenue risk relating to export volumes), a framework which assures the future environmental remediation of the terminal site, and also a framework which has demonstrated that it can be used to support prudent and efficient terminal capacity expansions, if and when required.

6 Disclaimer

6.1 Disclaimer

We prepared this report solely for the DBCT User Group's use and benefit in accordance with and for the purpose set out in our engagement letter with the DBCT User Group dated 29 September 2017 and section 1.3 of the report. In doing so, we acted exclusively for the DBCT User Group and considered no-one else's interest.

We accept no responsibility, duty or liability:

- to anyone other than the DBCT User Group in connection with this report
- to the DBCT User Group for the consequences of using or relying on it for a purpose other than that referred to above.

We make no representation concerning the appropriateness of this report for anyone other than the DBCT User Group. If anyone other than the DBCT User Group chooses to use or rely on it they do so at their own risk.

The information, statements, statistics and commentary (together the 'Information') contained in this report have been prepared by PwC from publicly available material, discussions with industry experts, and from material provided by the DBCT User Group and its constituent User companies. PwC has relied upon the accuracy, currency and completeness of that Information. The Information contained in this report has not been subject to an audit. PwC may in its absolute discretion, but without being under any obligation to do so, update, amend or supplement this Report.

Our modelling is reliant on the assumptions and forecasts as described in this report. These assumptions and forecasts are uncertain and the results are intended to be indicative only, and future outcomes may be different.

While we consent to a copy of this report being provided to the QCA, we do not accept any responsibility or liability (whether in contract, tort (including negligence) or otherwise) to the QCA or any other person for the consequences of any reliance on this Report.

This disclaimer applies:

- to the maximum extent permitted by law and, without limitation, to liability arising in negligence or under statute;
- even if we consent to anyone other than the DBCT User Group receiving or using this report.

Liability limited by a scheme approved under Professional Standards legislation.

Appendices

Appendix A Cost estimates

This section outlines the cost estimates for expansion options that have informed our analysis.

1 Capital cost estimates of terminal expansion options

Table 15 outlines the capital cost estimates used for the various Terminal augmentation and duplication options assumed as part of the modelling. The capital cost estimates are correct as at the estimate date detailed in the table.

Table 15: Capital cost estimates

Cost description	Estimate as at	Cost ($million)	Capacity	Source
Zone 4	31 Oct 2016	$356	4 mtpa	DBCTM (2017) *DBCT Incremental Expansion Study*, available at: http://www.qca.org.au/getattachment/f1ab7119-6909-4260-b150-f181be4a87b3/DBCTM%E2%80%94Expansion-Study-DAAU-submission.aspx
Project 8X	31 Oct 2016	$491	11 mtpa	DBCTM (2017) *DBCT Incremental Expansion Study*, available at: http://www.qca.org.au/getattachment/f1ab7119-6909-4260-b150-f181be4a87b3/DBCTM%E2%80%94Expansion-Study-DAAU-submission.aspx
Project 9X	31 Oct 2016	$2,844	35 mtpa	DBCTM (2017) *DBCT Incremental Expansion Study*, available at: http://www.qca.org.au/getattachment/f1ab7119-6909-4260-b150-f181be4a87b3/DBCTM%E2%80%94Expansion-Study-DAAU-submission.aspx
Dudgeon Point (stage 1)	31 Jan 2012	$3,632	30 mtpa	Beca (2012) Dudgeon Point (90Mtpa) Coal terminal Concept Study Volume I of II, unpublished.
Dudgeon Point (full terminal)	31 Jan 2012	$7,130	90 mtpa	Beca (2012) Dudgeon Point (90Mtpa) Coal terminal Concept Study Volume I of II, unpublished.

We have applied actual inflation based on the Australian Bureau of Statistics published CPI figures, *Brisbane series, Cat. No. 6401.1* to estimate the capital cost estimates to be as at 30 June 2017. The capital cost estimates as at 30 June 2017 are outlined in Table 16.

Table 16: Capital cost estimates of terminal expansion and duplication, as at June 2017

	Zone 4	8X	9X	Dudgeon Point (stage 1)	Dudgeon Point (full terminal)
Capital cost ($m)	$360.2	$496.8	$2,877.7	$4,044.4	$7,938.5

Applying the assumptions for Interest during Construction and Upfront Financing Costs, we then derived the RAB for each expansion option, outlined in Table 17.

Table 17: Expansion option RAB, as at June 2017

	Zone 4	8X	9X	Dudgeon Point (stage 1)	Dudgeon Point (full terminal)
Tonnages	4	11	35	30	90
Capital cost ($m)	$360.2	$496.8	$2,877.7	$4,044.4	$7,938.5
IDC ($m)	$34.5	$47.5	$275.3	$386.9	$759.4
Financing costs ($ m)	$8.2	$11.3	$65.7	$92.3	$181.2
RAB ($m)	$402.9	$555.7	$3,218.7	$4,523.6	$8,879.1

Source: PwC analysis

We have assumed that the Zone 4 expansion project is the only standalone expansion project, meaning that 8X and 9X cannot be undertaken independent of the Zone 4 project. Therefore, the RAB used to derive the levelised cost per tonne has been consolidated for the 8X and 9X projects. The consolidated costs of these projects are outlined in Table 18. No consideration has been given to timing, we have assumed that the incremental expansions are built concurrently.

Table 18: DBCT incremental expansion consolidated RAB

	Zone 4	8X	9X
RAB ($m)	402.9	958.6	4,177.3

2 Basis of modelling results

Table 19 outlines the basis of the modelling results detailed in section 3.

Table 19: Basis of modelling results

	Zone 4	Zone 4 + 8X	Zone 4 + 8X + 9X	Dudgeon Point (stage 1)	Dudgeon Point (full terminal)	WICT (existing terminal)	Abbot Point (existing terminal)	RG Tanna (existing terminal)
Tonnages (mtpa)	4	15	50	30	90	11*	10*	10*
RAB ($M)	$ 402.9	$ 958.6	$ 4,177.3	$ 4,523.6	$ 8,879.1	$ -	$ -	$ -
Escalating annuity payment ($M)	$ 23.1	$ 54.9	$ 239.4	$ 259.3	$ 508.9	$ -	$ -	$ -
Remaining useful life (years)	37	37	37	37	37	N/A	N/A	N/A
WACC (nominal pre-tax)	7.10%	7.10%	7.10%	7.10%	7.10%	N/A	N/A	N/A
Capital charge per tonne	**$ 5.77**	**$ 3.66**	**$ 4.79**	**$ 8.64**	**$ 5.65**	**$ -**	**$ -**	**$ -**
Operating charge per tonne (HCF + HCV)	$ 2.53	$ 2.53	$ 2.53	$ 2.53	$ 2.53	$ -	$ -	$ -
Total port cost per tonne	**$ 8.30**	**$ 6.19**	**$ 7.32**	**$ 11.17**	**$ 8.18**	**$ -**	**$ 7.00**	
Incremental rail cost	$ -	$ -	$ -	$ -	$ -	$ -	$ 11.00	
Total cost per tonne	**$ 8.30**	**$ 6.19**	**$ 13.32**	**$ -**	**$ -**	**$ 30.00**	**$ 18.00**	**$ 12.50**

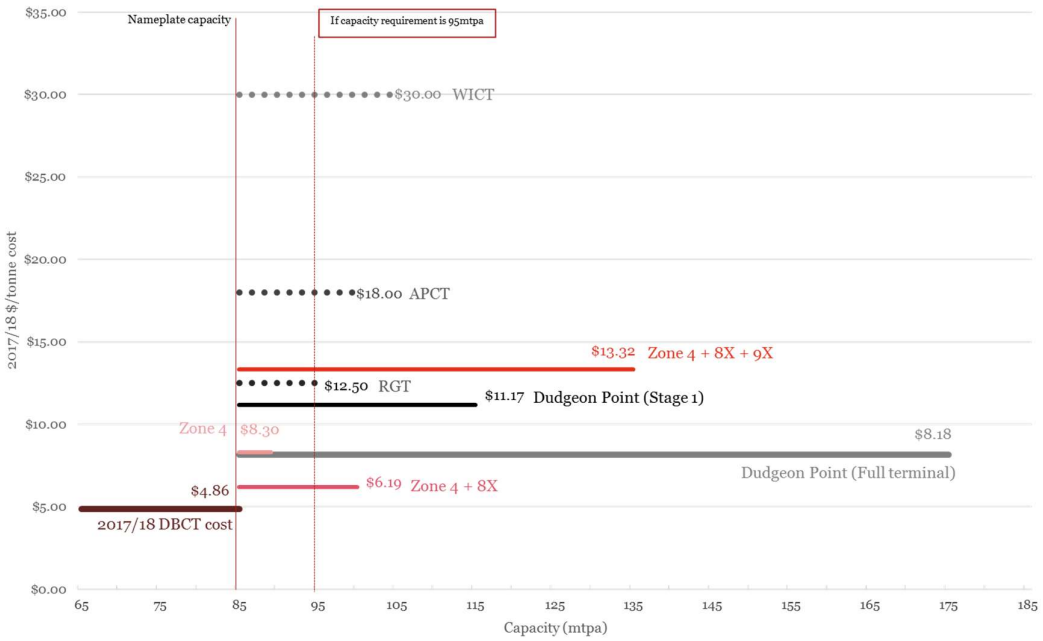
*Note: assumed capacity at WICT, APCT and RGT

Appendix B Modelling results

Figure 14 shows the estimated cost per tonne of each incremental expansion option, calculated with reference to the incremental capacity provided by that option, i.e. – the cost per tonne of Dudgeon Point (stage 1) is based on an additional 30 mtpa of capacity. In this scenario, we have assumed the maximum capacity requirement over the assumed declaration term is 95 mtpa, resulting in a need for expansion or an alternative export pathway to service demand.

All incremental expansion options to the Terminal, except for Zone 4 as a standalone project, could deliver 95 mtpa of capacity at a FY18 cost between $6.19 per tonne and $30.00 per tonne.

Figure 14: FY18 cost per tonne of incremental expansion options



Source: PwC analysis
Note: there are no reported available capacity figures for RGT. For the analysis above, we have assumed that ten mtpa of capacity is available at that terminal.

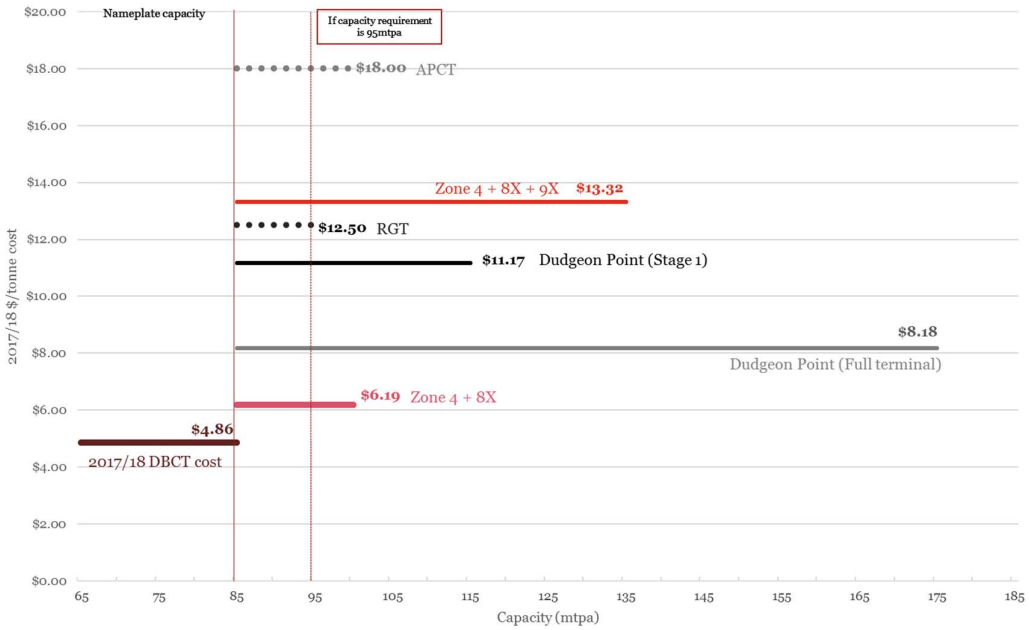
Shifting capacity to the Wiggins Island Coal Terminal is the highest cost and least viable option, with a total FY18 cost per tonne of $30.00.

Given this cost is an outlier, we focus below on the lower cost expansion/export pathways. Figure 15 outlines the FY18 cost per tonne of viable incremental expansion options/export pathways, and excludes the FY18 cost per tonne of shifting capacity to the Wiggins Island Coal Terminal and the Zone 4 project.

The lowest cost expansion option to meet 95 mtpa of capacity is serviced by the combined Zone 4 and Project 8X expansion to the existing facility, at a FY18 cost of $6.19 per tonne. The consolidated Zone 4 and Project 8X expansion to the existing facility is approximately

24 per cent lower than the next least cost option of the construction of the full Dudgeon Point Coal Terminal, with a FY18 cost of $8.18 per tonne.

Figure 15: FY18 cost per tonne of viable incremental expansion options



Source: PwC analysis
Note: there are no reported available capacity figures for RGT. For the analysis above, we have assumed that ten mtpa of capacity is available at that terminal.

This analysis does not contemplate the cost per tonne of each incremental expansion, terminal duplication or alternative export pathway, adjusted for the tonnage basis upon which costs would be recovered. Hence, the majority of these costs are understated. Refer section 3.5 for the scaled cost analysis.

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